General introduction
Youth with disabilities have been found to report lower levels of social participation than youth without disabilities (King, Shields, Imms, Black, & Ardern, 2013; Piškur et al., 2016; Shikako-Thomas, Majnemer, Law, & Lach, 2008; Taheri, Perry, & Minnes, 2016). Among adolescents with a visual impairment, social participation was reduced in multiple aspects of daily living (Kef, Hox, & Habekothé, 2000; McDonnall, 2010b; Sit, Lindner, & Sherrill, 2002). Limited social participation can have a negative effect on psychological functioning, health, and quality of life (King et al., 2006; Larson & Verma, 1999; Levasseur, Desrosiers, & Tribble, 2008; Babiss, & Gangwisch, 2009). It is through participation that young people learn how to interact with others and find meaning in life (Law, 2002). In turn, levels of psychosocial functioning that are delayed compared to youth of similar age may hinder social participation even further (Phillips, 1967; Viemerö & Krause, 1998). Therefore, easily accessible interventions aimed to improve both social participation and psychosocial functioning may be necessary to support young people with a visual impairment in living a fulfilling life.

The main objective of the studies in this dissertation was to gain insight into avenues for supporting social participation of adolescents with a visual impairment. Both “natural” social support levels and “additional” support provided using a mentoring program were studied in relation to social participation and psychosocial functioning. This introductory chapter provides a background overview of pertinent theoretical concepts and research on social participation, psychosocial functioning, and mentoring. This is followed by descriptions of the designs of the studies, the content of the mentoring program developed for young people with a visual impairment, and the outline of this dissertation.

**Visual Impairments: Definition, Prevalence, and Societal Context**

The World Health Organization (WHO) divides visual impairments into two categories: blindness and low vision. Low vision includes moderate to severe visual impairments. The WHO estimates that around 253 million people live with a visual impairment, of whom 217 million have severe to moderate visual impairments and 36 million are blind (Bourne et al., 2017). Major causes are uncorrected refractive errors, unoperated cataracts, and age-related macular degeneration. Of all people with a visual impairment, most (81%) are aged 50 years and older and live in Asia or Africa. Across the globe, the number of children who are blind is estimated to be 1.4 million (Gilbert & Foster, 2001). In the Netherlands, no accurate population-based data are available on the prevalence of visual impairments in children (Boonstra et al., 2012). However, researchers have estimated that in the Netherlands around 2,600 children aged 0–14 years have a visual impairment (Keunen et al, 2011; Rainey, Van Nispen, & Van Rens, 2014). Most studies assessing the prevalence of visual impairments use visual acuity to define the visual impairment, but no universally accepted definition for visual impairment exists (Varma, Ying-Lai, Klein, & Azen, 2004). For this thesis, visual impairments were defined as an impairment in vision including both the condition blindness and low vision which—even with assistance from visual aids—affects a person’s social participation.

In July 2016, the United Nations Convention of the Rights of Persons with Disabilities (UNCRPD) was ratified in the Netherlands (United Nations, 2006). By consenting with this convention, the Netherlands reaffirmed that all humans, including people with a disability, must enjoy all human rights.
General introduction

and fundamental freedoms (United Nations, 2006). The UNCRPD is intended as an instrument towards change in attitudes and approaches to persons with disabilities so that barriers to social inclusion of people with disabilities disappear. Being disabled or having an impairment is, therefore, seen as the outcome of interactions between persons with a disability and their context, in such a way that the community hinders effective social participation of people with disabilities through stigmatization, discrimination, and social exclusion (Madans, Loeb, & Altman, 2011). Because of the convention’s ratification, accessibility, equality, autonomy, non-discrimination, and social participation are now stated as fundamental rights for every person in the Netherlands. This includes the right to appropriate support and services needed to enhance social participation and reduce the risk of social exclusion. It is, therefore, important to know whether programs can be developed to enhance social participation outcomes.

Social Participation of Persons with Visual Impairments

Having a visual impairment significantly hampers someone’s ability to participate in activities of daily living and is associated with decreased participation in social activities (Gold, Shaw, & Wolfe, 2010; Kef, 1997; Kef et al., 2000; McDonnell, 2010b; Salminen & Karhula, 2014). Young people with a visual impairment had, on average, smaller social networks (15 persons, SD = 8) than their sighted peers (20 persons, SD = 13) in one study (Kef et al., 2000). This study also showed that within their social network, adolescents with a visual impairment reported significantly fewer friends, neighbors, and extended family members than adolescents without impairments. This smaller social network could be the result of the lower average aspirations regarding peer group integration reported by adolescents with a visual impairment, compared to their sighted peers (Pinquart & Pfeiffer, 2011b). Studies examining the sexual behavior of people with visual disabilities have shown that young people with a visual impairment date less and typically have their first kiss at an older age (17 years) than youth without disabilities (14 years) (Kef & Bos, 2006). Furthermore, higher unemployment rates (Goertz, Van Lierop, Houkes, & Nijhuis, 2010; La Grow, 2003) and lower mean levels of physical activity are found among people with a visual impairment compared to their sighted peers (Greguol, Gobbi, & Carraro, 2015; Hand, Lieberman, & Stuart, 2006). These distinct challenges with social participation were associated with lower levels of psychosocial functioning and poor health.

Adolescence is a phase in which major life transitions take place and young people consolidate their identities, act more independently from their parents, transition from school to work, and establish relationships with significant others outside their families (Amett, 2000; Nelson, Leibenluft, McClure, & Fine, 2005). Unsuccessfully completed transitions during adolescence (e.g., not attaining autonomy from parents or not being able to find a job after graduation) can limit opportunities for full social participation during adulthood. Therefore, adolescence has been viewed as an important window of opportunity to prevent maladaptive developmental pathways. For young people with disabilities, the transition to adulthood is of longer duration, more disharmonious, and more complex than that of typically developing young people (Hallum, 1995; Hudson 2003, 2006; Stewart et al., 2014; Stewart, Law, Rosenbaum, & Willms, 2002). These transformation challenges have been connected to personal factors,
such as cognitive ability and social competence, and to environmental factors, such as stigmatization and lack of support. Services trying to enhance the social participation of people with a visual impairment should especially focus on young people transferring into adulthood (Leeuwen, Rainey, Kef, Van Rens, & Van Nispen, 2014).

Mechanisms explaining reduced social participation have been connected to several individual- and disability-specific factors, such as age, mobility, and physical ability. However, lower levels of psychosocial functioning can also limit someone’s ability to fully participate in society. Having a disability requires psychosocial adaptations (Huntington & Bender, 1993; Wolman, Resnick, Harris, & Blum, 1994). Young people with a visual impairment report more psychosocial difficulties than their sighted peers (Huurre & Aro, 1998; Kef, 2002; Nyman, Gosney, & Victor, 2009; Pinquart & Pfeiffer, 2011a, 2014; Salminen & Karhula, 2014). Also, stronger declines in psychological wellbeing throughout different life phases have been found among young people with a visual impairment. In the long term, these psychosocial problems can have a detrimental effect on other developmental issues, such as individualization and becoming autonomous, which are of vital importance for social participation in adulthood (Cardol, De Jong, & Ward, 2002). Therefore, low levels of social participation might not only be related to fixed personal factors (e.g., disability and age) but also to more malleable personal factors, such as psychosocial functioning. Insight into factors related to reduced psychosocial functioning could provide mechanisms for interventions aiming to improve social participation among young people with visual impairments.

**International Classification of Functioning, Disability, and Health Framework**

The WHO has offered a framework, the International Classification of Functioning, Disability and Health, Child-Youth version (ICF-CY), to conceptualize functioning of youth with disabilities (WHO, 2007). Within this framework, participation is described as one of the four key components that classify a person’s functioning. It is defined as “involvement in a life situation” and is associated with other components in the framework, namely body structure and functions, activities, and contextual factors. Within the ICF framework, all these components are interrelated, showing the complexity of factors associated with the concept of participation. Several studies have emphasized that participation is a multidimensional construct (Adair, Ullenhag, Keen, Granlund, & Imms, 2015; Granlund, 2013; Granlund et al., 2012), meaning that improvements in participation can be fostered through multiple pathways. Figure 1 shows the ICF framework. This dissertation follows the distinctions made in this descriptive model.

Impairments of the physiological or anatomical functioning of the body diminish opportunities for participation. People with disabilities report reduced levels of social participation compared to their peers without disabilities (Koster, Pijl, Nakken, & Van Houten, 2010; Piškur et al., 2016; Shikako-Thomas et al., 2008; Taheri et al., 2016). Limitations in physical, social, and cognitive skills might explain these differences, but a lack of encouraging environments might also contribute (Bult, Verschuren, Jongmans, Lindeman, & Ketelaar, 2011; Piškur et al., 2012). Because the ICF framework refers to the body as a whole, it also includes psychological or mental functions within the component of body functions and structures (WHO, 2007). Salminen and Karhula (2014) investigated the impediments to participation experienced by young people with a visual impairment, using in-depth interviews with participants.
and their parents. Problems related to the domain of body functions and structures were found to be associated with problems with mental functioning, such as reduced energy, self-confidence, and motivation (Salminen & Karhula, 2014). This shows that, indeed, psychosocial functioning is associated with the experience of social participation.

Most definitions of participation emphasize attendance of involvement in everyday situations (Granlund, 2013) closely related to the activity component in the ICF framework. Assessment of these “objective” criteria for participation, of which the action can be observed if needed, involves capturing the frequency or performance of activities of daily life (Coster & Khetani, 2008; McConachie, Colver, Forsyth, Jarvis, & Parkinson, 2006). Possible questions are “Do you participate in sports during leisure time?” and “How often do you participate in sports during leisure time?”. With objective indicators of participation, comparisons between different groups can easily be made (Forsyth & Jarvis, 2002). However, these measures leave out people’s actual experience and the psychological or subjective aspect of participation. For example, a person could perform or be able to perform a certain activity (e.g., going to the movies with peers) but might still feel uninvolved, thus experiencing limited participation. In the ICF framework, activity and participation are inextricably linked. Therefore, interventions aiming to improve social participation should address both the level of activity as well as the sense of involvement within the activities performed (Coster & Khetani, 2008).

In the ICF framework, a distinction is made between two components of contextual factors, namely environmental and personal factors. Personal factors, such as age, comorbidity, gender, and cognitive ability, have been found to be associated with levels of social participation (Bedell & Dumas, 2004; Michelsen et al., 2009; Tan et al., 2016). Regarding environmental factors, the ICF framework states that both the ability to perform tasks of daily living and the experience of participation depend on people’s personal (e.g., social and physical) and cultural environments (WHO, 2007). For example, the
context of the family one is raised in and the fact that one is living in an urban or suburban region determine one’s opportunities for social participation. In a study done by Eriksson and Granlund (2004), contextual factors, such as accessibility of the physical environment, were identified by participants as being associated with their participation in society. The idea that individuals and their context are interrelated has been represented by Bronfenbrenner’s (1979) ecological framework. Social participation is a phenomenon that is affected at every level (micro, meso, exo, and macro) of Bronfenbrenner’s ecological framework. Imms et al. (2016b) propose a framework in which a transactional relationship is established between one’s environmental context and level of social participation. In this framework, the environment affects one’s opportunities for social participation while, on the other hand, personal factors affect opportunities for full participation within the environment (Imms et al., 2016b). Congruent with this model, this dissertation studies associated personal factors as well as enrichment of the environment by services especially aimed to facilitate social participation.

**Support for Social Participation**

Participation as both a process and an outcome has been studied and reported upon as the ultimate goal of rehabilitation (Imms et al., 2016a). Although the negative effects of limited participation have been shown in several studies, less evidence exists of successful approaches that enhance participation (Adair et al., 2015). The systematic review by Adair et al. (2015) found only seven studies on interventions to improve participation outcomes that met the inclusion criteria of the review (e.g., studies with a mean participant age of 5 to 18 years that utilized (quasi-) randomized controlled trials). A moderate effect was found for individually tailored coaching and mentoring interventions and education programs. These improved, for example, educational engagement, employment rates, and levels of positive social interaction (Adair et al., 2015). Minimal effects were found for physical activity programs. The systematic review recommended further research into individually tailored programs primarily aimed at improving participation outcomes. The important aspect of individualization was also emphasized by Imms and colleagues (2016b), based on their premise that participation is strongly related to a person’s context. The impact of individual context factors might explain the considerable individual variation in levels of social participation between persons with the same disability; it underlines that rehabilitation needs can vary between persons of the same subpopulation (in this case, those with visual disabilities).

Combining individually tailored relationship- and community-based interventions might support young people with a visual impairment in their everyday participation challenges. The generic potential of relationship-based interventions for helping young people to address and overcome social developmental challenges also finds support in fundamental theories of development and behavior change. Vygotsky’s (1986) theory explains how relationships and the provision of social support are important in assisting young people in advancing beyond their zone of proximal development, such that relationships provide the mechanism of change for developmental progress.

Social support provided by significant support figures within the social network, such as parents and peers, has been related to positive behavioral and psychological outcomes (e.g., Cutrona, Cole, Colangelo, Assouline, & Russell, 1994; Friedlander, Reid, Shupak, & Cribbie, 2007; Meadows, Brown, &
Elder, 2006; Rueger, Malecki, Pyun, Aycock, & Coyle, 2016). In addition, self-determination theory posits that interpersonal relatedness provides a motivational context for effort, persistence, and growth (Deci & Ryan, 2000). The positive impact of different types of community-based interventions on health- and psychology-related youth outcomes has also been demonstrated (e.g., Bhutta et al., 2013; Burns, Schoenwald, Burchard, Faw, & Santos, 2000). The implementation of an intervention within the community allows community members to participate and affect the development of the person within the program. In turn, the person may directly affect the environment. Within community-based interventions, participation is seen as the nodal point between providing support and positive outcomes (Murphy & Rigg, 2014). A one-to-one community-based formal mentoring program could be conceptualized as an example of an intervention providing individualized relationship-based support within the community.

Community-based Mentoring

An important factor that fosters resilience in young people is having connections with the community, such as positive role models and bonds with non-related adults (Rhodes, 2002). Mentoring programs involve a supportive and caring relationship between a young person and a non-parental older person (Rhodes, Spencer, Keller, Liang, & Noam, 2006). Rhodes proposed with her model (Figure 2; Rhodes, 2002) that the positive effects of mentoring on youth outcomes occur because the mentoring relationship fosters cognitive, social-emotional, and identity development. The model also states that these cognitive, social-emotional, and identity advances will be synergetic. The greatest impact will be found if mentoring interventions enhance more than one of these areas (Rhodes, 2002).

![Figure 2. Rhodes's model of mentoring](image)
Opportunities for learning, such as being introduced to new experiences and sharing in knowledge, contribute to the cognitive development of youth during mentoring. This is described by Vygotsky (1986) as the zone of proximal development, in which young people achieve higher mental capacities through interactions with a more competent and caring older person. The scaffolding principle provided by mentors within mentoring programs promotes learning and thinking skills (Rhodes et al., 2006). A positive mentoring relationship also challenges negative views that young people might have towards relationships with adults. Research in attachment theory (Bretherton, 1992) stipulates that a person’s experience-based perceptions and expectations of sharing experiences and calling for emotional support from others can be modified through positive interactions within new relationships (Belsky & Cassidy, 1994).

Sensitive and supportive responses from mentors may promote secure attachment behaviors and enable young people to be more open and aware of emotions (Rhodes et al., 2006), even if the relationship with the mentor is not durable and does not give rise to an attachment bond (Zegers, Schuengel, Van Uzendoorn, & Janssens, 2006). This is especially salient during adolescence, a period in which young people strive towards autonomy and social relationships with significant others are restructured. Furthermore, conceptions of future and current identity features can change during mentoring due to new comparisons made with a positive role model. As stated by Erikson (1968), identity is developed during adolescence as a combination of what persons conceive of themselves and what they think that others perceive and expect. Harter (1982) notes that global self-worth is based on the perceptions of others. Mentors’ positive appraisal can modify the way young people think about what other people think about them. Therefore, one-to-one mentoring provides a promising avenue to address the needs of young adolescents with a visual impairment to support them in increasing their social participation.

**Effects of Community-based Mentoring Programs**

In the last two decades, community-based mentoring programs addressing needs of vulnerable young people have become increasingly popular. In the United States, around 5,000 programs provide guidance to an estimated three million youth (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011; Rhodes, 2002). Research has demonstrated that mentoring is effective across a wide range of outcomes in youth (DuBois et al., 2011). However, the average effect size of mentoring programs is small ($d = .21$), and some individual studies have even shown a negative effect. Studies showing positive effects of mentoring were especially evident within the domain of employment and education, displaying improvements in educational performance and engagement, enhanced employment rates, and reduced school drop-outs (Aider et al., 2015; Dubois, Holloway, Valentine, & Cooper, 2002; Dubois & Silverthorn, 2005). Also, positive effects of mentoring programs were found for social relations, including relationships with peers (Karcher, 2008) and with teachers (Chan et al., 2013).

The positive impact of mentoring within the three developmental areas proposed by Rhodes’ model can only be realized when mentor and mentee build a strong relationship that is characterized by trust, mutuality, and empathy (Rhodes, 2002). Mentees within a high-quality relationship with their
mentor have shown better outcomes (Erdem, DuBois, Larose, Wit, & Lipman, 2016; Rhodes, Schwartz, Willis, & Wu, 2014). Program practice, such as matching mentors and mentees on the basis of similar characteristics, for example in interests, hobbies, and values, can reduce the risk of poor relationship quality and may enhance program effectiveness (Eby et al., 2013). Relationship duration or match longevity are key factors for determining match impact (DuBois & Rhodes, 2006; Grossman & Rhodes, 2002). When match length is increased, positive youth outcomes also increase. Although factors have been related to poor relationship quality, the causes of poor relationships are still not fully understood; estimates still show that in 30% to 50% of all formal mentoring programs, matches close prematurely (DeWit et al., 2016; Kupersmidt, Stump, Stelter, & Rhodes, 2017). Therefore, more insight is needed in different forms of match similarity within matches of mentoring programs, particularly because match similarity has been found related to better match and youth outcomes and, thus, could enhance program practices.

Studies examining the effectiveness of mentoring for youth with a disability or chronic illness within an experimental design are rare, with even fewer studies testing the impact of mentoring on young people with a visual impairment. Research suggests that mentoring youth with disabilities promotes independence and communication skills (Britner, Balcazar, Blechman, Blinn-Pike, & Larose, 2006), improves self-esteem and self-advocacy skills (Maslow & Chung, 2013), enhances personal empowerment and coping skills (Shpigelman, Weiss, & Reiter, 2009), and increases academic and job successes and skills related to having a disability (McDonald, Balcazar, & Keys, 2005). For young people who are legally blind, mentoring has been shown to be effective for decision-making efficacy, improved hope for the future, positive attitudes about blindness (Bell, 2012), job-seeking self-efficacy, career adaptability, and assertiveness in job hunting (O’Mally & Antonelli, 2016). Also, mentoring programs serving youth with disabilities predominately address needs within the educational and employment domains. Less is known about the effect of mentoring for young people with visual disabilities across multiple social participation outcomes.

In two studies examining the effect of mentoring for youth with a visual disability, the potential positive effect of matching mentees and mentors with a similar disability on youth outcomes was apparently taken as a given; in each study, legally blind mentees were matched to legally blind mentors (Bell, 2012; O’Mally & Antonelli, 2016). These practices are consistent with the assumption that similarity in disability contributes to the mentoring relationship above and beyond more generic, previously studied mentor characteristics, such as age, marital status, being employed, and working in a helping profession (Dubois et al., 2011). Both mentor and mentee having a disability might make it easier for mentors to play appropriate roles, such as being a positive role model and a nurturer of possibilities that positively impacts youth outcomes (Kupersmidt et al., 2017), because mentors and mentees can share similar personal experiences. However, less is known about the actual impact of matching mentors and mentees with similar disabilities on youth and match outcomes. Only one study has examined this impact, assigning students with a variety of disabilities to mentors with or without similar disability challenges. Within this study, no differences in youth outcomes were found (Sowers et al., 2016). The paucity of research on the benefits of matching mentors and mentees in terms of disability leaves a
knowledge gap that must be filled in order to further enhance the effect of mentoring for young people with (visual) disabilities.

Study Aims and Design Overview

To address the gaps in our knowledge of effective support for the challenges faced by youth with visual impairment in realizing their potential for social participation, the primary aim of this dissertation was to provide more insight into avenues for enhancing social participation and psychosocial functioning for young people with a visual impairment. This was achieved by testing the effect of a mentoring program developed for this study, called Mentor Support. For the purpose of this study, a randomized controlled trial was designed conformed to the Consolidated Standards of Reporting Trials statements (Schulz, Altman, & Moher, 2010). Adolescents with a visual impairment were placed into the following study groups using block randomization: 1) the “Mentor Support” program group consisting of mentors with a visual impairment, 2) the “Mentor Support” program group consisting of mentors without a visual impairment, and 3) the care-as-usual control group. More information about the experimental design of the study can be found in Chapter 3. All youth with a visual impairment across all three study conditions received the usual care provided by rehabilitation centers throughout the Netherlands. A total of three measurements were conducted: the first at baseline before randomization, the second after 12 months when the mentoring program ended, and the third after 18 months as a follow-up.

The mentoring program, called Mentor Support, was especially designed for the studies within this dissertation and was based upon the Elements of Effective Practice for Mentoring (EEPM; 2005; 2009). The primary purpose of the Mentor Support program was to improve the social participation of youth with a visual impairment in three domains of social participation: 1) school/work, 2) leisure activities, and 3) social relationships. In total, Mentor Support consisted of 12 planned face-to-face meetings of a mentor and mentee across an overall period of 12 months. On a weekly basis, dyads also had contact with one another via email, internet, or telephone. Meetings took place in or near the mentees’ homes and were mostly conducted outside of the house. Activities (e.g., going to the movies, theatre, a library, or an art gallery, preparing a meal for friends or inviting them over for a high-tea, participating in sports, and discussing personal goals over lunch, dinner, or drinks) accomplished during the meetings were based on mentees’ interests or goals or came from ideas described in the Mentor Support handbook. Exercises and assignments in the Mentor Support handbook were offered in the form of suggestions to the mentors and mentees to preserve their intrinsic motivation for participation. Having successful experiences and encouraging positive thinking were the focus of the match meetings. Potential mentors were extensively interviewed, screened, and trained prior to being accepted and matched with a mentee. All matches also received ongoing match support throughout the program that was conducted at a minimum frequency of once a month.

The secondary aim of this dissertation was to provide more insight into guides, pathways, and milestones towards social participation with a special focus on different aspects of psychosocial functioning as a mechanism facilitating social participation. To permit stronger conclusions concerning the direction of purported causal associations, a longitudinal design with multiple measurements of
two different cohorts of a national database of people with visual impairments was used. The first cohort, starting in 1996, consists of four measurements, and the second cohort, starting in 2005, consists of three measurements.

**Samples and Procedures**

The findings of the current dissertation were based on four different study samples consisting of persons with a visual impairment. Table 1 provides an overview of the aims of each chapter and the samples used in this dissertation. Participants were mainly recruited through national service organizations for people with visual impairments in the Netherlands. For the sample in which the effectiveness of a mentoring program was studied, online banners, brochures, and social media were also used to recruit adolescents with a visual impairment. In every sample, eligible participants and their parents (if the participants were under 18 years) received an information letter and signed an informed consent form before they entered the study.

In the study described in Chapter 2, the results of a longitudinal cohort of young people with visual impairments were examined at four measurement points in the years 1996 (N = 316), 2005 (N = 205), 2010 (N = 178), and 2016 (N = 161). The mean age at the first measurement was 18 years (SD = 2.83), at the second 27 (SD = 2.74), at the third 32 (SD = 2.78), and at the fourth 39 (SD = 2.68). In 1996, when the participants were recruited, the sample consisted of adolescents living in either the community (91%) or in institutions. Of the total group, 19% were blind, 18% had severe low vision, and 63% had moderate low vision. There was equal gender distribution upon the first measurement in 1996 (53% male), the second (57% male), the third (55% male), and the fourth (56% male). In 2016, 67% of the 161 participants were in a romantic relationship, and 44% were married. Over 20 years, drop-outs occurred at every measurement point, but these rates were not related to levels of social support.

Seventy-six adolescents with a visual impairment participated in the mentoring intervention study (Chapters 5 and 6). All participants were aged between 15 and 22 years (with a mean age of 18.45 years, SD = 2.00) and living in the Netherlands. Almost half of the participants (47%) were male. For most of the participants (70%), the onset of their visual impairment was at birth. Of the total group, 27% were blind, 33% had severe low vision, and 40% had moderate low vision. Almost half of the participants had some sort of additional impairments (49%), and the same number of participants were visually impaired due to an inherited condition. Almost one-third (33%) had never attended special education, and 29% had a paid job. Also, 36 mentors with and without a visual impairment participated in this study (Chapter 4). Exactly 50% of the total group of mentors were visually impaired (blindness or low vision). On average, all mentors were 30.5 years old (SD = 5.41) and 36% male. The majority (70%) had a bachelor’s degree or higher, and 28% were employed full-time. Most of the mentors had Dutch origins (98%).
Chapter 1

Table 1. Overview of the study samples and research themes in each chapter

<table>
<thead>
<tr>
<th>Study Type</th>
<th>Overview</th>
<th>Chapter</th>
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</thead>
<tbody>
<tr>
<td>Longitudinal study</td>
<td>Studying the trajectories of change of perceived social support and its association with loneliness</td>
<td>Chapter 2 (N = 316)</td>
</tr>
<tr>
<td>Protocol study</td>
<td>Describing the study protocol and study design of the mentoring intervention study</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Effect of mentoring program study</td>
<td>Studying the effect of match similarity on match outcomes</td>
<td>Chapter 4 (N = 36)</td>
</tr>
<tr>
<td></td>
<td>Studying the effectiveness of Mentor Support on youth outcomes:</td>
<td>Chapter 5 (N = 76)</td>
</tr>
<tr>
<td></td>
<td>1. Social participation and moderation effect</td>
<td>Chapter 6 (N = 76)</td>
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<td></td>
<td>2. Psychosocial functioning and mediation effect</td>
<td></td>
</tr>
<tr>
<td>Intra- and interpersonal factor study</td>
<td>Studying the association between personality traits, social competence, satisfaction with social support, and loneliness</td>
<td>Chapter 7 (N = 96)</td>
</tr>
</tbody>
</table>

Ninety-six participants in a second longitudinal cohort of people with visual impairments participated in the last study (Chapter 7) in which two measurement waves were used. At the first measurement in 2005, they were aged between 14 and 21 years (mean age of 17.8 years, SD = 1.99), and at the second measurement in 2010, their age was between 20 and 27 years (mean age of 23.5 years, SD = 1.90). At the start of this study, 15% of the total group were blind, 27% had severe low vision, and 58% had moderate low vision. The biggest proportion of the sample consisted of students (56%), and almost half of the participants combined study and work (42%). Only a few participants were not working or pursuing education (2%). At the first measurement, most participants lived with their parents (86%). At the second measurement, around half of the participants were involved in romantic relationships (51%), and 2% of the group had children.
Outline of The Thesis

The next chapter, Chapter 2, gives insight into the development of "natural" social support levels in adolescents and young adults with a visual impairment. The trajectories of perceived social support from parents and peers among adolescents with a visual impairment throughout young adulthood, and their differential associations with loneliness in later life, were examined in this study. The results provide insight into how social support from important figures within the social networks of young people with a visual impairment develops and whether they experience "gaps" in support while transitioning into adulthood. Chapter 3, which explains the intervention study rationale, also presents the study design and the content of a potential community-based mentoring program to support adolescents with a visual impairment, called Mentor Support. The effect of matching mentors and mentees with the same disability (a visual impairment) on match outcomes (e.g., strength of the relationship and premature closure) is examined in Chapter 4. The results of this study provide insight into the generally understudied effect of match similarity practices on match outcomes. An evaluation of the effectiveness of the community-based mentoring program (Mentor Support) on the social participation of adolescents with a visual impairment is reported in Chapter 5. Also, a comparison is made between mentees matched to a sighted mentor and those matched to a mentor with a visual impairment, and the association between several potential moderators is tested. In Chapter 6, the effect of the same mentoring program was evaluated for psychological functioning. Again, a comparison was made between those matched to mentors with and without a visual impairment. In addition, the indirect effect of psychosocial functioning as a result of the mentoring program on change in social participation is examined. In Chapter 7, other intra- and interpersonal factors related to psychological functioning are explored. The results of this study could provide an additional rationale for factors related to the psychosocial functioning of adolescents with a visual impairment. In the last chapter, Chapter 8, the findings of the studies are summarized and discussed with implications for practice and recommendations for future research.