AN INVESTIGATION INTO TRAINING PROGRAMMES OF TEACHERS OF LEARNERS WITH VISION IMPAIRMENT IN TURKEY AND ENGLAND

By

KUBRA AKBAYRAK

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College of Social Sciences

University of Birmingham

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ABSTRACT

This thesis is concerned with what it is to be a teacher of learners with vision impairment (VI teacher). It presents a comparative case study of two national VI teacher training programmes in Turkey and England. Using Bronfenbrenner's ecological systems model of human development as a theoretical lens, the study investigates similarities and differences between the approaches of training programmes to the distinctive roles of VI teachers in the two countries. Data was gathered through questionnaires and interviews from programme stakeholders in both countries (VI teachers, trainees and tutors). By putting the learner with vision impairment at the centre of the analysis, key findings of the study are as follows: (1) While the role of VI teachers is conceptualised within *proximal* and *distal* systems of the learner in England, the role of VI teachers in Turkey is mostly conceptualised within the *proximal* system(s) of the learner. (2) The concept of promoting independence of learners is more narrowly understood as relating to *teaching* 'daily living' and 'mobility' skills in Turkey, whereas it is conceptualised as *developing* 'independent living', 'independent learning' and 'self-advocacy' skills of learners in England. (3) The partnership role with families is shaped by a teacher-centred approach in Turkey and is mainly reflected in family *training* strategies for changing the attitudes of families towards disabilities, whilst there is a learner-centred approach in England, which mostly emphasises family *support* for developing and promoting the independence of the learner.

DEDICATION

This thesis is dedicated to Professor Fatma Taşdelen-Yeşildal for all her support and encouragement she gave me to follow my dreams.

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GLOSSARY

BOS	Bristol Online Survey
CCS	Comparative Case Study
CoHE	Council of Higher Education in Turkey
CPD	Continuing Professional Development
DfE	Department for Education
EBL	Enquiry Based Learning
ECC	Expanded Core Curriculum
EHCP	Educational and Health Care Plan
GRC	Guidance and Research Centre
ICT	Information and Communications Technology
ILS	Independent Living Skills
ITT	Initial Teacher Training
KS	Key Stage
MDVI	Multiple Disabilities and Vision Impairment
MoNE	Ministry of National Education in Turkey
MS	Mainstream School
MQ	Mandatory Qualification
NatSIP	National Sensory Impairment Partnership
NCTL	National College for Teaching and Learning
PBL	Problem Based Learning
PPCT	Process-Person-Context-Time
QTS	Qualified Teacher Status
QTVI	Qualified Teacher of Children and Young People with Vision Impairment

RQHS	Registered Qualified Habilitation Specialist
RNIB	Royal National Institute of Blind People
SEN	Special Educational Needs
SENCo	Special Educational Needs Coordinator
SEND	Special Educational Needs and Disabilities
SERC	Special Education and Rehabilitation Centre
SESR	Special Education Services Regulation
SET	Special Education Teacher
SS	Specialist School in England / Special Education School in Turkey – designated specifically for learners with vision impairment
SS-VI	Classroom designated for children with vision impairment without any additional needs in special education schools in Turkey
SS-MDVI	Classroom designated for children with multiple disabilities and vision impairment in special education schools in Turkey
TA	Teaching Assistant
TRA	Teaching Regulation Agency
VTC	Vocational Training Centre
VTS	Visiting Teacher Service
VI	Vision (visual) impairment / vision (visually) impaired
VIEW	Professional association of the vision impairment workforce in the UK

DEFINITION OF TERMS

In relation to the research topic, a number of terms were conceptualised throughout this thesis as follows:

Learner [with vision impairment/VI]: Vision impairment is 'a broad term that describes a wide continuum of loss in visual function' (Douglas and McLinden, 2005, p.26). In line with this, a variety of terms were used in the literature 'to describe the degree of visual loss in children' (McLinden and Douglas, 2014, p.2), including severely sight impaired, partially sighted, blind and low vision. However, throughout this thesis, the 'learner' or 'learner with vision impairment' refers to children and young people with vision impairment (including those who have different 'degrees' of visual loss and 'causes' of vision impairment) who have (or not) additional learning difficulties.

VI [specialist] teacher: Depending on the context, teachers with 'particular' teacher training in the area of vision impairment education are referred to with a variety of terms in the literature, including 'specialist teachers of children and young people with visual impairments' (Mason and McCall, 1997), 'teachers of students with visual impairments' (Spungin and Ferrell, 2000; Sapp and Hatlen, 2010) or 'vision specialist teachers' (McLinden, Ravenscroft, Douglas, Hewett and Cobb, 2017). By considering these differences, throughout the thesis, the term 'VI teacher' was used in order to refer to teachers who have 'particular' or 'specialist' teacher training in the area of vision impairment education.

VI [specialist] teacher training programme: This term was used to describe programmes that deliver teacher training in the area of vision impairment education (either at undergraduate level or postgraduate level) for trainees intending to work as a VI teacher.

Special Education Teacher (SET): Throughout the thesis, this term was used to refer to VI teachers in Turkey who graduated from the VI teacher training programme at Gazi University.

Qualified Teacher of Children and Young People with Vision Impairment (QTVI): In this thesis, this term refers to VI teachers in the UK who graduated from the VI teacher training programme at the University of Birmingham.

Bronfenbrenner's theoretical approaches towards human development: This term refers to the following theoretical approaches developed by Urie Bronfenbrenner throughout his career: 'Ecological Systems Theory' (Bronfenbrenner, 1976; 1977; 1979; 1992) and 'Bioecological Theory of Human Development' (Bronfenbrenner, 2001; 2005).

Proximal influence: This term refers to 'enduring forms of interaction in the immediate environment' (Bronfenbrenner, 2005, p.6) of the developing learner. Throughout this thesis, this term was used to refer to *direct* interaction developed by the VI teacher *with* the learner within the immediate environment of the learner.

Distal influence: This term refers to interaction developed by the VI teacher with other people *around* the learner within remote environment(s) and/or between immediate and remote environments of the learner.

CHAPTER 1

INTRODUCTION

Overview

This study is a descriptive research which investigates teacher training in the area of vision impairment education in Turkey and England. Through a comparative-case study (CCS) approach, this study examines one teacher-training programme which delivers training in the area of vision impairment education in each country. Using Urie Bronfenbrenner's theoretical approaches to human development as a conceptual lens (Bronfenbrenner, 1976; 1977; 1979; 1992; 2001; 2005), this study aims to provide a holistic insight into *how* the notion of the VI teacher is conceptualised in those programmes by investigating roles of VI teachers *with* the learner and with other people *around* the learner (e.g. families, other professionals). By comparing/contrasting similarities and differences between the concepts of the VI teacher in Turkey and England, this study also aims to provide a holistic insight into educational practices provided by VI teachers in both countries.

This Introduction Chapter provides a brief overview regarding the background of the study. It first provides a description of the research context by presenting brief overviews of the national education systems in Turkey and England. Following that, it presents brief information regarding educational provisions made for learners with vision impairment in both countries. This chapter then explains the rationale of the study as well as the aims of the study. It finally describes the structure of the thesis through providing brief overviews relating to each chapter of the thesis.

1.1. Research context

This study involves the following two countries: (1) Turkey (a country that is located at the edge of western Asia and south-eastern Europe) and (2) England (a country that is part of the United Kingdom which is located on the island of Great Britain). According to Turkish Statistical Institute (TurkStat), the population of Turkey was 81,867,223 in the year 2018 (TurkStat, 2019, online). According to national statistics in the UK, the population of England was estimated approximately as 55,619,400 in the mid of 2017 (Office for National Statistics, 2018, online).

A brief note on the education systems in Turkey and England

Turkey's education system is overseen by the following two organisations: (1) the Ministry of National Education (MoNE) which administers pre-primary, primary, lower and upper secondary education [in Turkish: Milli Eğitim Bakanlığı (MEB)], and (2) the Council of Higher Education (CoHE) which administers higher education in Turkey [in Turkish: Yüksek Öğretim Kurulu (YÖK)] (Senel, 1998). As illustrated in Table 1.1, the national formal education system in Turkey includes pre-primary, primary, lower secondary, upper secondary and higher education (MoNE, 2019). While pre-primary education is compulsory for children with special educational needs in Turkey (European Commission, 2019, online), the compulsory primary school age starts approximately at the age of five (MoNE, 2019).

In England, 'the Department for Education (DfE) is responsible for children's services and education, including early years, schools, higher and further education policy, apprenticeships and wider skills' (DfE, 2019a, online). Full-time education is compulsory from five years old to 16 years old and after 16, young people have to be in full-time or part-time education or in training until 18 years old (European Commission, 2019, online). It is obligatory for the national curriculum to be taught in all local-authority-maintained schools in England (DfE, 2019b,

online). As demonstrated in Table 1.1, the content and structure of the national curriculum are divided into four Key Stages in England (European Commission, 2019, online).

<table>
<tr><th colspan="3">Turkey</th><th colspan="3">England</th></tr>
<tr><td>3-5 years old</td><td colspan="2">Pre-primary level[1]</td><td>3-4 years old</td><td colspan="2" rowspan="2">Early years</td></tr>
<tr><td>Year 1
(5-6)</td><td rowspan="4">Primary Level</td><td rowspan="13">Compulsory</td><td>Reception
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(6-7)</td><td>Year 1
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<tr><td>Year 3
(7-8)</td><td>Year 2
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<tr><td>Year 7
(11-12)</td><td>Year 6
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<tr><td>Year 9
(13-14)</td><td rowspan="4">Upper Secondary Level</td><td>Year 8
(12-13)</td></tr>
<tr><td>Year 10
(14-15)</td><td>Year 9
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(15-16)</td><td>Year 10
(14-15)</td><td rowspan="2">Key Stage 4</td></tr>
<tr><td>Year 12
(16-17)</td><td>Year 11
(15-16)</td></tr>
<tr><td>17+</td><td colspan="2">Higher education in state or foundation universities</td><td>16-18</td><td colspan="2">Secondary school sixth form or sixth form college or further education college[2]</td></tr>
</table>

Table 1.1 Educational pathways of children and young people in Turkey and England (MoNE, 2019; DfE, 2019b, online; European Commission, 2019, online)

In line with differences between the education systems in Turkey and England, teacher training systems also differ in these countries. Responsibility for teacher training in Turkey lies with the Council of Higher Education (CoHE), the Ministry of National Education (MoNE) which is responsible for teacher appointment, and training institutions (universities) (DfE, 2011). As illustrated in Table 1.2, teacher training programmes in Turkey most commonly involve 4-year

[1] Pre-primary education is compulsory for children with special educational needs in Turkey.
[2] Or start an apprenticeship or traineeship in England.

undergraduate training (which leads to a BA degree) to be able to work as a qualified teacher in pre-primary, primary, lower or upper secondary level schools (CoHE, 2007).

In England, teachers are required to have Qualified Teacher Status (QTS) to be able to work as a teacher in local authority schools (Foster, 2019). Foster (2019) reports that initial teacher training (ITT) routes differ in many ways in England, including whether it is 'school-centred' or 'higher education-centred'. The higher-education centred ITT route most commonly includes 3-4 years full-time training in England (Foster, 2019). As demonstrated in Table 1.2, there are three types of undergraduate degrees which lead to QTS: (1) Bachelor of Education (BEd) (mostly to become a primary school teacher); (2) Bachelor of Arts (BA); and (3) Bachelor of Science (BSc) (mostly to become a secondary school teacher) (Foster, 2019). Following this, the higher education-centred route most commonly continues with postgraduate teacher training courses which last one-year full-time training (Foster, 2019). This leads to QTS and a postgraduate qualification (usually referred to as a Postgraduate Certificate in Education [PGCE]) (Foster, 2019).

Year in training	**Turkey**		**England**	
1st	Undergraduate Year-1	Pre-service training lead to a BA degree	Undergraduate Year-1	ITT lead to BEd, BA or BSc degrees
2nd	Undergraduate Year-2		Undergraduate Year-2	
3rd	Undergraduate Year-3		Undergraduate Year-3	
4th	Undergraduate Year-4		Postgraduate teacher training course	PGCE/PGDip

Table 1.2 Higher-education centred teacher training systems in Turkey and England (most commonly)

In line with those differences in teacher training systems in Turkey and England, VI teacher training programmes in these countries also differ from each other. As the next chapter of the thesis will explain in detail (see 'Chapter 2: Literature Review'), VI teacher training in Turkey is provided through 4-year undergraduate level of training within Special Education Teacher

Training programmes (campus-based) as part of pre-service training. In England, VI teacher training is provided through 2-year postgraduate level of training (distance learning) as part of continuing professional development (CPD) for qualified teachers.

Overviews of educational provision for learners with vision impairment in Turkey and England

In Turkey, the Special Education Services Regulation (SESR) [in Turkish: Özel Eğitim Hizmetleri Yönetmeliği] regulates all special educational services in conformity with the Disability Act (2005) [in Turkish: Engelliler Hakkında Kanun] (MoNE, 2018b). For example, Article 15 of this Act mentions educational placement and diagnosis [sic] of people with disabilities by special educational evaluation boards in Guidance and Research Centres (GRCs) [in Turkish: Rehberlik ve Araştırma Merkezi (RAM)]. Accordingly, Guidance and Research Centres which are supervised by the General Directorate of Special Education and Guidance Services in the MoNE [in Turkish: Özel Eğitim ve Rehberlik Hizmetleri Genel Müdürlüğü (ÖRGM)] have responsibilities for educational evaluation, diagnosis, educational placement decisions for the child with disabilities and for following up that child's development in Turkey (Karasu, 2014; ORGM, 2018).

Following 'educational evaluation and diagnosis' from a GRC, the child is usually directed to an educational setting according to their educational needs through a committee decision taking into account views of committee members, including a family member and a special education teacher (ORGM, 2018). According to ORGM (2018), in accordance with the needs of the child, children with special educational needs might be directed by GRCs to different routes of educational provision. For example, children may attend a special education school in which educational provision is mostly provided by Special Education Teachers (SETs) or they may attend a mainstream school as part of 'inclusive education' within the same classroom alongside their non-disabled peers in which educational provision is mostly provided by teachers who

have no specialisation in the area of special education (ORGM, 2018). They may also attend a mainstream school with 'specialist' educational provision in a special education class [in Turkish: özel eğitim sınıfı] in which educational provision is mostly provided by SETs or if they are not able to be directly provided with support in any educational setting, they may receive educational support at home or hospital (ibid. pp.12-14).

In the 2016-2017 academic year, there were 17 special education schools designated for learners with vision impairment (primary and lower secondary level) and 233 Guidance and Research Centres in Turkey (MoNE, 2017a). As illustrated in Table 1.3, the approximate number of pupils with vision impairment who attended mainstream schools was 2722 (aged approximately between 5 and 17) and the approximate number of pupils with vision impairment who attended VI special education schools was 1346 in the 2017-2018 academic year in Turkey (MoNE, 2018a).

In England, according to the National Sensory Impairment Partnership (NatSIP), it is estimated that there are 34,560 children and young people with vision impairment [0-25] who require specialist support, of which nearly 24,500 are under 19 years old (based on visual acuity excluding less severe vision impairment) (NatSIP, 2017). The National Sensory Impairment Partnership (NatSIP) also reports that at least half of them have additional disabilities and/or chronic health problems (ibid.). The Royal National Institute of Blind People (RNIB) reports that a variety of specialist support for children and young people with vision impairment and their families in England is provided in a range of settings, including home, early year settings, schools and post-school settings (RNIB, 2016a). As seen in Table 1.3, approximately, two thirds of children with vision impairment in England attend mainstream schools (including mainstream schools with a VI resource base) and only two per cent of children with vision impairment attend specialist schools designated for learners with vision impairment (NatSIP, 2017).

As illustrated in Table 1.3, the population of children and young people with vision impairment in Turkey (nearly 5-17 years old) is almost one sixth of the population of children and young people with vision impairment in England (0-19 years old). Considering the populations of Turkey and England, this difference between these countries seems to be worth considering. For instance, it may well be argued that there are different understandings of vision impairment in these countries. In terms of the Turkish context, for example, it may be considered that there are some children and young people who have vision impairment but they are not 'identified' as pupils with vision impairment by the MoNE. It may also be considered that based on visual acuity, 'mild' types of vision impairment are not acknowledged as a vision impairment in Turkey.

In England, specialist support for children and young people with vision impairment is mostly provided by a variety of professionals. This may include a Qualified Teacher of Children and Young People with Vision Impairment (QTVI), a Registered Qualified Habilitation Specialist (RQHS) or mobility teacher/habilitation worker, a teaching assistant (TA) who provides in-class and curriculum support or a health specialist who specialises in diagnosis and treatment of eye conditions, such as an ophthalmologist or optometrist (RNIB, 2016a). However, Keil, Fielder and Sargent (2017) argue that since mainstream and special education settings in England are 'unlikely to have sufficient knowledge and expertise to meet the child's/young person's needs, specialist advice and coordination of support is usually provided by the peripatetic QTVI' (p.569).

In Turkey, the key professional who provides specialist support for learners with vision impairment is commonly a Special Education Teacher (SET) [in Turkish: Özel Eğitim Öğretmeni]. As previously indicated, VI teacher training in Turkey is 'currently' provided through Special Education Teacher Training programmes (4-year undergraduate level) in universities. However, teacher training in the area of vision impairment education was only

provided in one university (Gazi University) until 2016 in Turkey (for more information see 'Chapter 2: Literature Review'). Accordingly, by considering the graduates of this programme, the number of VI teachers (i.e. SETs) in Turkey can be estimated approximately as 700 (see Table 1.3).

	Turkey	**England**
Approximate number of children and young people with vision impairment	4,068[1]	24,500[2]
Number of VI special education schools	17[3]	11[4]
Approximate number of pupils who attend VI special education schools	1346	Less than 1000
Approximate number of VI teachers	700	600[5]

Table 1.3 Demographic information regarding educational provision for learners with VI in Turkey and England (MoNE, 2018a; 2019; CoMSP, 2018; RNIB, 2016b; 2017; NatSIP, 2017; Keil, Fielder and Sargent, 2017)*

1.2. Rationale of the research

In relation to the rationale of conducting research, Denscombe (2002) states that:

> 'There must be a reason for doing research as otherwise there would be no point to spending time, money and effort undertaking the investigation. Not surprisingly, therefore, explicit and precise statements about the purpose of the research are generally acknowledged as a "good thing"' (p.25).

Accordingly, this section explains the background of the researcher (e.g. previous experience) and the background of the research topic (e.g. previous research) in order to explain *why* this research study was carried out.

*__Note:__ [1] between ages of approximately 5 and 17; [2] under 19 years old; [3] primary and lower secondary level schools; [4] excluding further education colleges; [5] excluding QTVIs employed directly by schools

The background of the researcher

As a qualified primary school classroom teacher having graduated in Turkey (awarded a BA degree from Gazi University), I gained a scholarship from the Ministry of National Education in Turkey (MoNE) in order to study in the field of vision impairment education in the UK. This scholarship has covered not only the study for Master's and PhD degrees in the UK, but has also covered a job position as a 'decision-maker' in the MoNE relating to educational policies and practices for children and young people with vision impairment in Turkey on condition that a relevant PhD degree was taken in the UK. The initial purpose of this scholarship was to 'observe' *how* children and young people with vision impairment have been provided with educational support in the UK in order to help improve educational practices for children and young people with vision impairment in Turkey.

In relation to the role of sponsors in designing research, Bailey (1996) highlights the impact on the research of the relationship between the sponsor and the researcher by stating that 'when someone else pays for the research, the research topic and research questions are often developed in conjunction with the sponsor' (p.53). Although the sponsor of this study (i.e. MoNE) was quite 'strict' about the research topic (i.e. the research topic had to be in the area of vision impairment education), any research question regarding the topic was not suggested by them. Nevertheless, since the implicit purpose of this scholarship was to 'observe' *how* children and young people with vision impairment receive educational support in the UK, they suggested conducting a study concerning vision impairment education in the UK. Therefore, I have always been interested in understanding educational practices and policies relating to learners with vision impairment in the UK.

However, my background to be able to conduct research in this area was very limited because I have had neither training to be a VI teacher, nor any previous teaching experience with learners with vision impairment. For this reason, prior to starting my PhD study in the UK, I intended

to become familiar with educational practices concerning learners with vision impairment in Turkey and England. Throughout my Master's education in the 'Special Educational Needs and Disabilities' programme at the University of Birmingham, I have had a few opportunities to gain familiarity with educational practices regarding learners with vision impairment in both countries. For example, I visited a mainstream school with a VI resource base during one term as part of a module in the programme. This enabled me to 'observe' some educational practices provided for pupils with vision impairment in England. I also conducted a small-scale study as part of my final dissertation in this programme, investigating the teaching of mathematics to learners with vision impairment in Turkey. This experience enabled me to gain a broad understanding of educational practices regarding learners with vision impairment in Turkey.

After gaining basic insights into educational practices regarding learners with vision impairment in both countries, I intended to 'compare' educational support which is provided for learners with vision impairment in Turkey and England as part of my PhD research (in line with the aim of my scholarship). Therefore, as a primary school classroom teacher having graduated in Turkey, I aimed to investigate the distinctive role/function of VI teachers in order to gain an insight into educational support provided for learners with vision impairment in both countries. This led to a need for understanding how VI teachers are prepared in order to provide educational support for learners with vision impairment in these countries. Therefore, I (hereafter referred to as 'the researcher' throughout the thesis) intended to understand *what* roles VI teachers have in Turkey and England and *how* VI teacher training programmes prepare teachers for those roles in both countries.

The background of the research topic

Vision impairment is defined as 'a broad term that describes a wide continuum of loss in visual function' (Douglas and McLinden, 2005, p.26). Therefore, a variety of terms have been used in

the literature ‘to describe the degree of visual loss in children’ (McLinden and Douglas, 2014, p.2), including severely sight impaired, partially sighted, blind and low vision. The World Health Organisation (WHO) classifies vision impairment into two groups according to visual acuity. This includes (1) *distance vision impairment*, including ‘mild’ (visual acuity worse than 6/12); ‘moderate’ (visual acuity worse than 6/18); ‘severe’ (visual acuity worse than 6/60); ‘blindness’ (visual acuity worse than 3/60) and (2) *near vision impairment* (visual acuity worse than N6 or M.08 with existing correction) (WHO, 2018, online).

With respect to vision impairment education, the literature widely discussed the potential association of vision impairment and the child’s development and learning (e.g. Merry, 1933; Lowenfeld, 1973; Bishop, 1978; Kingsley, 1997; Wolffe, 2000a; Silberman, 2000). For example, Wolffe (2000a) reports that some studies investigating the impact of vision impairment on the development of children have found some differences between early developments of sighted children and children with vision impairment, such as a delay in walking. More specifically, the relevant literature highlighted that children with vision impairment might have some distinctive/unique needs that sighted children do not have because of a lack of incidental learning, such as mobility (e.g. Kirkwood, 1997; Griffen-Shirley et al., 2000; Wolffe, 2000b). In line with this, the literature widely emphasised that children with vision impairment might face barriers while they are participating in education and society. A key barrier faced by learners with vision impairment while they are participating in education was commonly seen as related to ‘access’ to information (McLinden and Douglas, 2014).

In order to reduce potential barriers that might be faced by learners with vision impairment, the importance of teachers who provide specialist educational support to learners with vision impairment (i.e. VI teachers) has been widely acknowledged in the literature. Therefore, VI teachers have always been a point of interest throughout history. For example, when children with vision impairment started to receive formal education in residential schools in the 1800s,

two views were being argued in the US (Merry, 1933). While some were arguing that 'blind [sic] teachers are superior to those who see because they have a better understanding of the problems confronting blind children', others were arguing that sighted teachers are 'more desirable socially for blind [sic] pupils to come in daily contact with seeing people' (p.184).

In line with the increase in inclusive educational practice, it seemed that the understanding of the concept of the VI teacher has simultaneously changed. Nevertheless, the literature consistently suggests that the distinctive/unique needs of learners with vision impairment have given rise to a requirement of 'distinctive/unique' training for teachers who will provide educational support for learners with vision impairment (e.g. Corn and Silberman, 1999; Erin et al. 2006; Pogrund and Wibbenmeyer, 2008). Therefore, VI teachers have commonly been required to have competencies/skills *over* and *above* those required to teach sighted children (Spungin, 1978, *italics* added). Thus, some countries have had a requirement for teachers to have a specialist qualification to teach children with vision impairment, including the United Kingdom (UK) and the United States (US) (Douglas et al., 2009).

Despite differences in a range of educational and legislative contexts, a number of studies have been conducted to investigate VI teacher training programmes in different countries (mostly in the US). Most of those studies investigated programmes in terms of their delivery approaches or their delivery designs/methods (see, for example, Silberman, Corn and Sowell, 1996; Corn and Silberman, 1999; Silberman et al., 2004; Koenig and Robinson, 2001; Ambrose-Zaken and Bozeman, 2010; Bickford, 2006; Gale, Trief and Lengel, 2010; McLinden et al., 2006a; 2006b; 2007; 2010; Kim et al., 2012a). A number of studies were also conducted to investigate the distinctive roles of VI teachers in the literature (e.g. Spungin, 1978; Wolffe et al., 2002; Griffin-Shirley et al., 2004; Brown and Beamish, 2012), including their roles alongside paraprofessionals' roles (e.g. McKenzie and Lewis, 2008; Lewis and McKenzie, 2010).

However, as McLinden et al. (2017b) state, 'the move towards greater inclusive practice in recent years has resulted in significant changes in curriculum design, delivery and support for children and young people with vision impairment' (p.179). Therefore, it may well be argued that the understanding of the concept of the VI teacher has significantly changed in recent years. For example, recent studies by McLinden et al. (2016; 2017a; 2017b) reinterpreted the role of VI teachers as 'agents of change' in line with national standards for teachers of children and young people with vision impairment in England (National College for Teaching and Leadership [NCTL], 2016). Accordingly, some of the distinctive roles of VI teachers were defined as 'contributing to establishing individual learner needs and strengths' and 'promoting progressive and mutual accommodation between the active learner and the changing environment in order to develop and promote independence' (McLinden et al., 2017b, p.570).

In line with the change in the nature of the role of VI teachers, there have been relatively a limited number of studies investigating VI teacher training and the distinctive role of VI teachers in the literature. Most of those above-mentioned studies intended to find out 'what type/method of delivery approach may be *better* for preparing VI teachers' or intended simply to find out 'what do VI teachers do in classrooms'. Furthermore, although there were some studies in the literature investigating VI teacher training in Turkey (e.g. Kesiktas and Akcamete, 2011) and England (e.g. McLinden et al., 2006a; 2006b; 2010), no empirical study investigated the distinctive role of VI teachers in a holistic manner, either in Turkey or in England.

Considering this 'research gap' in the literature, it was assumed that investigating VI teacher training in Turkey and England might contribute to research and practice regarding VI teacher training. It was also considered that investigating the distinctive role of VI teachers in Turkey and England would provide a holistic overview relating to educational provision provided by VI teachers in each country. Furthermore, through comparative inquiry, it was assumed that investigating VI teacher training and the role of VI teachers in England could 'help improve the

situation at home' (Phillips, 2006, p.284) regarding educational support provided for learners with vision impairment.

1.3. Aims of the research

Denscombe (2002) states that there are a range of types of purposes for conducting research in social science, including in order to describe something *(what is it like?)*, evaluate something *(how well does something work?)*, explain the causes of something *(why do things happen?)*, or in order to develop good practice *(how can it be improved?)*. Although this research had some intentions to 'improve' educational practices provided for learners with vision impairment in Turkey, the main purpose was to 'understand' the concept of the VI teacher in Turkey and England *(what is it like?)* through investigating their distinctive training and roles in both countries. In line with this, this research had the following three key aims:

- To explore views/opinions of VI teachers in Turkey and England regarding their roles and their training in the area of vision impairment education.
- To investigate *how* distinctive roles of the VI teacher are conceptualised in VI teacher training programmes in Turkey and England.
- To identify similarities and differences between the concepts of the VI teacher in Turkey and England.

1.4. Structure of the thesis

This thesis has the following seven chapters:

Chapter 1: Introduction encompasses the research context, the rationale of the research, the research aims and the structure of the thesis.

Chapter 2: Literature Review mainly presents and discusses issues which emerged from the literature review in relation to VI teachers and VI teacher training. It also provides historical and current overviews of VI teacher training in Turkey and England. In line with issues that emerged from the literature, this chapter concludes by explaining how the research problem was conceptualised through discussing how the theoretical framework and research questions of the study were developed.

Chapter 3: Methodology describes how the research questions were addressed by explaining the philosophical, methodological, ethical and practical aspects of the research. It explains the research approach, philosophical approaches to the study, the process of designing the research, and the process of preparing data collection methods. This chapter also briefly discusses ethical dilemmas and issues, which emerged throughout the study. Lastly, it describes the data analysis process of the study, which involves both numeric and textual data analyses.

Chapter 4: Findings and Analysis (Study-1) presents and discusses the findings of the study from Turkey. It presents analyses of the programme stakeholders' views (17 SETs and 6 tutors), which were gathered through interviews, regarding the role of VI teachers and the VI teacher training programme in Turkey (i.e. Gazi University). It then presents and discusses analyses of the stakeholder's opinions (i.e. 54 SETs and 82 trainees) which were gathered through questionnaires regarding the VI teacher training programme in Turkey. Finally, by merging the textual and numeric data, this chapter presents an overview of a concept of the VI teacher in Turkey.

Chapter 5: Findings and Analysis (Study-2) presents and discusses the findings of the study from England. The chapter presents analyses of programme stakeholders' views (13 QTVIs and 4 tutors), which were gathered through interviews, regarding the role of VI teachers and the VI teacher training programme in England (i.e. University of Birmingham). It then presents and

discusses analyses of the stakeholder's opinions (48 QTVIs and 12 trainees) which were gathered through questionnaires regarding the VI teacher training programme in England. This chapter finishes by presenting an overview regarding the concept of the VI teacher in England through merging the textual and numeric data analysis of Study-2.

Chapter 6: Discussion mainly compares/contrasts the findings of Study-1 (Turkey) and Study-2 (England). The chapter first explains the conceptual framework of comparative inquiry of the study. It then addresses the research questions through discussing similarities and differences between conceptualisations of the VI teacher in the two countries. Lastly, this chapter illustrates the link between conceptualisations of VI teachers' roles and the approaches of the programmes to distinctive roles of VI teachers in Turkey and England.

Chapter 7: Conclusion presents the conclusion of the findings of the study and points to how this study contributed to theory, methodology and practice in relation to the research topic. It ends by discussing strengths and limitations of the study through final reflections.

CHAPTER 2

LITERATURE REVIEW

Introduction

A central theme for the literature review process was the concept of the teacher with specific training in the area of vision impairment education (i.e. VI teacher). In line with this, this chapter discusses general issues which emerged from the literature review regarding the distinctive role/function of VI teachers as well as their training in the area of vision impairment education (i.e. VI teacher training).

The chapter first explains the process of reviewing the relevant literature. It then discusses issues that emerged from the literature in relation to knowledge, understanding and skills/competencies required by VI teachers as well as their distinctive roles/functions. Following this, it discusses issues that emerged from the literature relating to VI teacher training, including delivery approaches and designs which were applied in VI teacher training programmes. Since this study is concerned with Turkey and England, the chapter also provides historical and current overviews of VI teacher training in these countries.

In line with the increase in inclusive educational practice, the literature review illustrated that there was a shift in understanding the distinctive role/function of VI teachers. Therefore, regardless of different national systems, the chapter also discusses issues regarding the re-conceptualisation of the role/function of VI teachers in the literature. In keeping with the issues emerging from the literature, this chapter ends by explaining how the research problem was conceptualised through a discussion of how the theoretical framework and research questions of the study were developed.

2.1. The review process of literature

It is widely acknowledged that most common types of literature reviews are 'narrative reviews' and 'systematic reviews' (Bryman, 2016; Thomas, 2017). Bryman (2016) states that narrative reviews are the traditional type of literature review in which the researcher provides an explanation about what is already known about the topic as a prelude to conducting the research. In contrast, he notes that systematic reviews are not typically conducted as a prelude to conduct research because the aim is to compose 'unbiased' and 'comprehensive' accounts of the literature (ibid.). Since the aim of the literature review for this study was to establish what is already known about the research topic as a 'prelude' to developing the research questions, a narrative review was utilised in the process.

Nevertheless, narrative reviews draw upon certain structured and systematic approaches in order to develop comprehensive accounts of the literature. Therefore, the review process was carried out in two stages. First, systematic searches were conducted by using online databases, including the University of Birmingham e-library service and EBSCO Education Databases which provide key databases in the field of education (e.g. British Education Index, ERIC, Child Development and Adolescents Studies). Hand-searches were also conducted of sources relevant to the study topic. Following this, the literature was divided into 'distinct' areas in order to conceptualise the research problems of the study.

The process of reviewing the literature was conducted from May 2016 to March 2018. Throughout this process, the EndNote software tool (X8 version) was used to help manage and analyse the literature.

Stage 1: Hand-searches of sources and systematic searches of electronic databases

In line with the aim of the study, the main purpose of the literature review was to identify issues that emerged from the literature in order to develop research questions as well as to provide

information regarding the topic to be studied. Therefore, hand-searches and systematic searches were mainly conducted in order to answer the following two questions:

(1) What is known about the concept of VI teachers? (e.g. distinctive roles/functions of VI teachers, competencies/skills required by VI teachers)
(2) What is known about the VI teacher training? (e.g. delivery approaches, designs, methods of programmes)

Throughout the systematic searches of electronic databases, different key words were used in a variety of combinations regarding three different concepts relevant to the topic as follows:

- Vision impairment: *visual/vision impairment(s); visually/vision impaired; low vision; sight/vision loss; partially sighted; blind/ness.*
- VI teacher: *teachers of students/pupils/children and young people/learners with VI; vision, qualified, peripatetic/itinerant/visiting, advisory, specialist teachers.*
- VI teacher training: *teacher preparation/training/education; teacher training program(me); professional development; pre-service training; personnel training.*

The systematic searches combined the key words within each concept using the Boolean operator OR, and combined each concept using the Boolean operator AND. In addition to systematic searches of electronic databases, hand-searches of some sources, including books, book chapters and articles, were also conducted. For instance, since there was not online access to the *Journal of Visual Impairment and Blindness* for the issues before 1994, the issues from 1977 to 1994 were surveyed in printed format at the University of Birmingham's Main Library, looking for the particular articles and issues on the role and training of VI teachers.

In relation to the research topic and the aim of the literature review, inclusion/exclusion criteria were used for the selection of literature through systematic searches of electronic databases and

hand-searches (see Table 2.1). For instance, a great number of articles relevant to the topic were found in the *Journal of Visual Impairment and Blindness* throughout the review process. Therefore, as illustrated in Table 2.1, the date for systematic searches was chosen as the first publishing date of this journal (i.e. 1977).

	Inclusion criteria	**Exclusion criteria**
Systematic searches of electronic databases	Scholarly (peer reviewed) academic journals relevant to training/education/preparation of VI teachers	Not scholarly (peer reviewed) academic journals, studies about (only) training of teachers of deafblind students/mobility and orientation specialists/classroom teachers, paraprofessionals/teaching assistants
Hand searches of other sources	Books, book chapters, book reviews, articles, reports, dissertations, policy documents, official web-pages in Turkey and England relevant to the research topic, special issues of academic journals on role and training of VI teachers	Not relevant materials to the research context and not relevant materials to Turkish and English contexts (i.e. policy documents, web-pages)
Date (only for systematic searches)	1977 onwards	Older than 1977
Language	English or Turkish	Any other language

Table 2.1 Inclusion/exclusion criteria for the selection of literature

Stage 2: Dividing the relevant literature into 'distinct' areas

In order to synthesise the material included in the literature (Bryman, 2016), following the systematic searches of electronic databases and hand-searches, the literature was divided into 'distinct' areas in order to conceptualise the research problem. Regardless of different national contexts, the literature was divided into two broad areas relating to the research topic: (1) distinctive role/function of VI teachers as well as knowledge, understanding and/or skills/competencies required by VI teachers and (2) training of VI teachers. However,

throughout the review process, particularly in line with the increase in inclusive practice, the literature review illustrated that there was a shift towards understanding the role/function of VI teachers. Therefore, a category regarding the changing role/function of those teachers was included in the process. Accordingly, the relevant literature was broadly divided into the following 'distinct' (but 'interrelated') areas:

- Teachers of learners with vision impairment (Section 2.2)
- Teacher training in the area of vision impairment education (Section 2.3)
- Reinterpreting the role/function of VI teachers (Section 2.4).

2.2. Teachers of learners with vision impairment

The literature relating to vision impairment education widely acknowledges that learners with vision impairment have certain distinctive/unique needs that might create 'barriers' while they are participating in education. In order to reduce those potential barriers, there is widespread agreement in the literature that qualified personnel who are trained/prepared in the area of vision impairment education are required, including *specialist* teachers (see, for example, Corn and Silberman, 1999; Erin et al., 2006; Hatlen, 2000; Pogrund and Wibbenmeyer, 2008; Douglas et al., 2009; McLinden et al., 2017b).

While the literature in relation to vision impairment education provides a strong agreement about the requirement of *specialist* teachers in order to meet the distinctive/unique needs of learners with vision impairment, it seems that such an agreement may not sit comfortably with some of the views regarding inclusive practice. For instance, Norwich (2013a) states that 'specialised' teaching may be necessary for inclusive practice for 'some' learners but 'this does not mean that a separate specialist teacher is required in a separate setting' (p.79). When the literature was reviewed in relation to teacher preparation and inclusive practice, it seemed that much attention was given to initial teacher training. For example, there is some evidence in the

literature that initial teacher training courses do not cover enough skills for teachers to be able to work with *all* learners, including learners with 'learning difficulties' (e.g. Forlin, 2001; Hodkinson, 2005). In line with this, there were a number of recommendations regarding how initial teacher training should provide knowledge and skills for teachers to be able support *all* learners in the literature. For example, Florian and Rouse (2009) recommend that initial teacher education should prepare all teachers with an individual and a collective responsibility for improving the learning and participation of *all* children.

In fact, considering the distinctive/unique needs of learners with vision impairment (which have been widely highlighted in the literature), it is not reasonable to anticipate that *all* teachers would have specific knowledge, understanding and skills/competencies regarding learners with vision impairment after their initial teacher training. Therefore, unsurprisingly, *specialist* teachers with specific training in the area of vision impairment education are required to support learners with vision impairment in many countries, including the UK. For instance, In England and Wales, Douglas et al. (2009) report that specialist teachers of children with visual impairment are required to have a mandatory qualification (MQ) (see the next section for more details). In Scotland, Ravenscroft (2015) states that 'an appropriate qualification [for VI teachers] is defined in terms of specific competences, which comprise the *specialist* knowledge, understanding and skills required of teachers to enable them to teach pupils who are visually impaired' (p.162, *italics* added). However, while VI teacher training has been provided within postgraduate programmes for qualified teachers in some countries (e.g. the UK and many states of the US), in other countries (e.g. Turkey) it has been provided within undergraduate programmes for prospective teachers who will work with learners with vision impairment.

Nevertheless, regardless of different country contexts, it seems that the key purpose of VI teacher training programmes is to prepare VI teachers for meeting the unique/distinctive needs of learners with vision impairment in order to improve their participation in education and

society. This is because the literature review illustrates a number of similar approaches to knowledge, understanding and skills/competencies required by VI teachers. Accordingly, regardless of country contexts, the next sections discuss common issues that emerged from the literature relating to knowledge, understanding and skills/competencies required by VI teachers and the distinctive roles/functions of VI teachers respectively.

2.2.1. Knowledge, understanding and skills/competencies required by VI teachers

In relation to studies on teacher education, Darling-Hammond (1999) states that 'central to any discussion of teacher preparation is a judgement about what it is teachers must be prepared to do' (p.14). Similarly, there has been some basic discussion in the literature about what it is those teachers must be prepared to do. For example, there is some evidence in the literature that competencies/skills required by teachers who work with learners with vision impairment began to be discussed at the early period of the 20th century in the US. Holman and Scholl (1982) report that in 1918 the American Association of Instructors of the Blind defined a number of necessary qualities and skill areas which teachers should provide for blind [sic] pupils, including systematic physical training in the gymnasium and the scientific training in homemaking (for girls).

However, Hatlen (2000) states that when the first university-based teacher preparation courses in the area of vision impairment education were instituted in the US, there were no [official] criteria for certifying teachers of students with disabilities. Therefore, it appeared that the first official step to determine skills/competencies for VI teachers was taken in the early 1950s in the US, as Holman and Scholl (1982) report that eighty-two competencies for teachers of the 'blind' and eighty-seven competencies for teachers of 'partially sighted' students were separately developed as part of a nationwide study (entitled 'Qualification and Preparation of Teachers of Exceptional Children') in the US. Following this, in the 1960s the Council of

Exceptional Children (CEC) identified some competencies for VI teachers in order for teacher preparation programmes to provide for their trainees, including knowledge of the influence of various types and degrees of visual impairments on children's development (ibid.).

After the mid-20th century, as the trend towards competency-based training in teacher preparation programmes increased in the US (see 'Section 2.3.1' for more information), it seemed essential to determine what specialised competencies were necessary for teaching children with vision impairment, *over* and *above* those required to teach sighted children (Spungin, 1978, *italics* added). A 'generalist' and 'non-categorical' approach in VI teacher preparation in the 1970s had led to determining competencies in order to increase the quality of teacher preparation programmes (Holman and Scholl, 1982). For example, the American Foundation for the Blind (AFB) worked with professional teacher trainers during the period of 1973-1975 to determine the competencies of teachers. As a result of this work, the following seven teaching activity areas were recognised and outlined in a booklet entitled 'Competency Based Curriculum for Teachers of the Visually Handicapped: Field Testing Edition': (1) assessment and evaluation, (2) educational instructional strategies, (3) guidance and counselling, (4) administration and supervision, (5) media and technology, (6) school-community relations and (7) research (Spungin, 1978; Holman and Scholl, 1982).

In the late-20th century, in line with increasing concerns that young people with vision impairment were not well prepared to live independent lives, teaching 'disability-specific core curricula' was highly emphasised in the literature (Wolffe et al., 2002). Accordingly, the distinctive/unique needs of learners with vision impairment had led to teaching 'additional' curriculum areas which are *over* and *above* the mainstream curriculum areas (Douglas and McLinden, 2005; 2014, *italics* added) and outside mainstream teachers' expertise (Spragg and Stone, 1997). These curriculum areas (e.g. independent living skills, mobility) have been discussed and referred to a variety of ways in the literature, including as a 'special curriculum'

(Mason and McCall, 1997), an 'additional curriculum' (Douglas and McLinden, 2005; 2014), and an 'expanded core curriculum' (ECC) (Hatlen, 1996; Sapp and Hatlen, 2010). However, principally, as McLinden et al. (2016) state, 'regardless of the terminology, the notion of an additional or expanded core curriculum is clearly linked with the broad notion of independence' (p.182).

Accordingly, the literature review widely highlights that VI teachers should have knowledge, understanding and skills/competencies to be able to ensure that additional/expanded core curriculum areas (e.g. assistive technology, independent living skills) are taught to learners to promote and develop their independence (e.g. Sapp and Hatlen, 2010; Allman and Lewis, 2014). For instance, Sapp and Hatlen (2010) argue that:

> '[VI] teachers should have a deep understanding of all the areas of the ECC, know methods for providing in the ECC, and be able to implement effective strategies for incorporating the ECC into educational programming' (p.347).

In relation to providing learners with skills in additional/expanded core curriculum areas, Allman and Lewis (2014) also highlight that VI teachers should have knowledge regarding the impact of vision impairment on the learner's development for their informational and collaborative roles with other professionals who may have a limited understanding of vision impairments. Therefore, in order to provide learners with skills in additional/expanded core curriculum areas, 'disability-specific' knowledge, understanding and competencies/skills of VI teachers are widely highlighted in the literature, such as understanding the visual system, the implications of vision impairment and conducting functional vision assessments.

The literature also suggests that skills/competencies should be developed in a clear and certain way to prevent any ambiguity in understanding essential skills/competencies of VI teachers. For example, in the US, Pogrund and Wibbenmeyer (2008) argue that 'more consistent standards [for VI teachers] are needed nationwide' (p.12). Therefore, the literature review illustrated that specific attention was given to determining and validating standards for

skills/competencies required by VI teachers with respect to the following two areas: (1) teaching braille literacy (e.g. Amato, 2002; Rosenblum, Lewis, and D'Andrea, 2010; 2012); and (2) teaching assistive technology (e.g. Smith and Kelley, 2007; Smith et al., 2009; Zhou et al., 2011). In relation to these areas, the literature also suggested that in-service training might be useful in order for VI teachers to improve their skills/competencies in braille literacy (e.g. Wittenstein and Pardee, 1996; Amato, 2002; Keil, 2004) and assistive technology (e.g. Zhou et al., 2011; Kamei-Hannan et al., 2012).

In addition, the literature emphasises that VI teachers should have knowledge, understanding and/or skills in relation to meeting the needs of learners who have vision impairment and additional or complex needs. For example, it is widely agreed that due to the changing needs of the defined population of learners with vision impairment, professionals (including VI teachers) are required to *expand* their roles/functions and skills/competencies for supporting children with vision impairment and who have additional or complex needs (see, for example, Bryant, 1978; Mason, 1997; Silberman and Sacks, 2000; Douglas et al., 2009). For example, Douglas et al. (2009) state that:

> 'There is increasing recognition in the literature of the need to ensure that there are suitably trained professionals with specialist expertise to support students with visual impairment, particularly in the light of an increase in mainstream school placements and the changing needs of the population' (p.74).

To sum up, as Douglas et al. (2009) report, there is some evidence that various attempts have been made to define the essential knowledge, understanding and competencies/skills required by VI teachers. The literature illustrates that the essential knowledge, understanding and competencies/skills required by VI teachers are mainly related to 'disability-specific' topics, such as understanding vision and vision impairments and conducting functional vision assessments. The literature also indicates that the required knowledge, understanding and skills/competencies for VI teachers are commonly related to reducing potential barriers to

participation for learners with vision impairment in education. In line with this, the following section discusses common issues that emerged from the literature regarding the distinctive role/function of VI teachers.

2.2.2. The distinctive role/function of VI teachers

Regardless of different national policy and legislative contexts, it is widely highlighted that VI teachers have 'multifaceted' and 'varied' roles particularly due to working with a population with a wide range of age groups and needs in a variety of settings (e.g. mainstream, special education school) and with a variety of professionals from other disciplines, such as educational psychologists. In line with this, the distinctive role of VI teachers has commonly been described in the literature alongside terms such as 'complex', 'confused' and 'demanding' (see, for example, Griffin-Shirley et al., 2004; Spungin and Ferrell, 2000; Brown and Beamish, 2012). As an example, Spungin and Ferrell (2000) state that:

> 'Infants, children, and youth with visual handicaps [sic] receive special education and related services in a variety of settings that bring them into contact with a range of personnel. Perhaps the most important member of this team of professionals is the teacher of students with visual handicaps, whose specified training and experience often establish him or her as the individual best qualified to address the unique learning needs created by visual handicap. Because of the variety of placement options available, however, there is often *confusion* about the role, function, and mandate of the teacher of students with visual handicaps' (p.785, *italics* added).

Despite the complexity of the roles, a number of common points have been highlighted in the literature regarding the role/function of VI teachers. For instance, Spungin and Ferrell (2000) broadly explain the responsibilities of VI teachers in *all* cases. These include – but are not limited to – performing functional vision assessments, recommending appropriate reading and writing media, providing instruction in braille or instructing with large print and optical devices and providing guidance to students and their families.

Nevertheless, the key aspect of the distinctive role of VI teachers has been widely accepted in the literature as removing potential barriers that might be faced by learners with vision

impairment. For instance, Douglas et al. (2009) report that a key focus of research in the field of vision impairment education has been on the concept of 'access', particularly concerning barriers that learners might face while accessing visual information. In line with this, providing access to the curriculum has been accepted as one of the key roles of VI teachers in the school setting. For example, McLinden and Douglas (2014) state that:

> 'In the context of education, an important role of the educator is to find appropriate ways of reducing potential barriers [faced by learners with vision impairment] to access through the deployment of appropriate strategies' (p.14).

However, considering the fact that access is a 'complex' and 'multi-levelled' term (Douglas et al., 2011, p.35), Douglas et al. (ibid.) developed a dual view of access framework regarding the support needs of learners with vision impairment. In essence, the origins of the dual view of access framework are in an analysis offered by Douglas et al. (ibid.) in which the authors highlighted the dilemmas facing educators when designing education interventions for print access for learners with vision impairment. They noted that in relation to educational provision for learners with vision impairment, some interventions focussed upon social and environmental adjustment (i.e. 'providing children with accessible material'), while others focussed upon individual child development ('i.e. teaching children *access skills*'). It was later that McLinden and Douglas (2014) broadened the distinction to interventions and curriculum more generally and they subsequently outlined the dual view of access model within the following terms (p.13):

- 'Access to learning' – the child is provided with access to appropriate information in order to learn about a particular curriculum area.
- 'Learning to access' – the child is provided with the means by which s/he is able to access information independently.

Arguably, the advantage of the dual view of access model is that it offers an easily communicated framework for stakeholders – in particular for teachers (including VI teachers) who are the key target of the authors. For example, the dual view of access includes the following two approaches for VI teachers: (1) providing accessible materials in the child's preferred medium (e.g. braille, large print); and (2) teaching access skills (e.g. teaching the use of a low vision aid, assistive technology). According to Douglas et al. (2011), providing accessible materials can be thought of as what is required in the 'here and now' of the child's life, whilst teaching access skills can be thought of as 'longer term' development in the child's life (p.35). It has been also noted that these two approaches are not 'mutually exclusive' and each approach is necessary at different stages in the child's educational pathway (ibid.). However, the literature suggests that teaching children access skills (i.e. 'learning to access' skills) has important longer-term benefits for learners with vision impairment as they become independent adults (see, for example, Corn et al., 2003).

However, the dichotomy between the two approaches within the dual view of access model may be considered as contrived. This is because all teaching strategies do not fit neatly under these two headings, and the framework might imply that educators must choose one approach over another rather than drawing upon both in a dynamic way. The authors would counter this by arguing that the interest is finding the balance between the two approaches for educators (including VI teachers). Even so, a related limitation of the framework is that the authors focus their attention upon finding balance but offer few specifics about exactly when each strategy/approach should be used. To this extent, the framework does not offer a predictive or detailed account of what educators should do. Nevertheless, it could be argued that the authors broadly suggest that over time children should develop more of their own agency, require less scaffolding, and eventually require less inclusive/social adjustment.

To this extent the dual view of access framework might be seen as driven by a more medical approach to disability. This is because the model seems to be focused much upon preparing children to navigate an unaccommodating world for which they must take responsibility rather than demanding social change. The model might also be seen as relatively simplistic, focussing broadly upon desired educational outcomes for children with vision impairment and educational teaching strategies. It does not – nor does it intend to – offer an all-embracing theory of the development of children with vision impairment, or the broader system in which they operate.

However, as indicated previously, the advantage of the framework is that it offers an accessible framework for teachers, including VI teachers. To this extent, the authors were highlighting some of the dilemmas facing teachers – most notably the dilemma between when to focus upon inclusive teaching strategies that include *all*, and when to focus upon specialist approaches specifically relevant to learners with vision impairment (as exemplified by the additional/expanded core curriculum). Similarly, the literature review illustrated the dilemmas facing VI teachers in relation to developing the additional/expanded core curriculum skills of learners with vision impairment. For example, in order to develop and promote the independence of learners with vision impairment, as noted in the previous section, it is widely acknowledged that providing additional/expanded core curriculum skills (e.g. learning braille, using assistive technology) is one of the key roles of VI teachers. Nevertheless, there is some evidence in the literature that VI teachers spend most of their time making accommodations in relation to academic activities and they neglect the teaching of independence skills in 'disability-specific' areas. For instance, an early study by Spungin (1978) with 1,993 teachers of learners with vision impairment (response rate 41%) found that the activities occupying the most time for them were related to 'educational strategies' (almost 53%), 'assessment and evaluation' (18%) and 'guidance and counselling' (11%). Similarly, more than 20 years after this study, Wolffe et al. (2002) observed 18 teachers of learners with vision impairment during

their workday at the school. Their study revealed that these teachers spent the majority of their time focusing on 'academic instructions' (27% and 14%), whilst they spent a limited time teaching the expanded core curriculum (ECC) areas, including 'social-emotional skills' (9%), 'orientation and mobility skills' (8%), 'sensory motor skills' (8%) and 'daily living skills' (7%).

Additionally, a number of studies investigated the role/function of additional support staff/professionals (e.g. teaching assistants/paraprofessionals, mobility specialists) in relation to providing additional/expanded core curriculum skills for learners with vision impairment. For example, a survey by McKenzie and Lewis (2008) with 293 teachers of learners with vision impairment and 138 paraprofessionals was carried out into the responsibilities of teachers and paraprofessionals in schools. The results illustrated that paraprofessionals were more involved in direct instruction in all areas of the ECC than the VI teachers were. In another example, with regard to mobility and independence provision in the UK, Pavey (2011) reported that mobility and independence training was sometimes provided by VI teachers who had additional qualifications in teaching mobility. However, she noted that this was not assigned as high a priority as other areas of the additional curriculum, since providing mobility and independence training was not the main role of VI teachers in the UK.

To conclude, regardless of national contexts, the literature widely highlights the multifaceted nature of the roles of VI teachers. However, it seems that the main aspect of the role of VI teachers has been highlighted in relation to 'access' (both providing access and teaching access skills). A further aspect widely highlighted in the literature is the importance of the distinctive role of VI teachers in providing additional/expanded core curriculum skills for developing and promoting the independence of learners with vision impairment. However, there is some evidence that VI teachers spend most of their time in the school teaching academic skills rather than teaching additional/expanded core curriculum skills. The literature review also reveals an

ambiguity in the role of VI teachers and additional support staff in relation to providing additional/expanded core curriculum skills for learners with vision impairment.

2.3. Teacher training in the area of vision impairment education

As previously stated in this chapter, one of the aims of reviewing the literature was to ascertain 'what is known about VI teacher training'. Therefore, this section begins by providing a brief history of VI teacher training and then discusses a variety of delivery approaches and designs which have been used in VI teacher preparation programmes. Since this study is mainly concerned with Turkey and England, this section also provides overviews of VI teacher training in both countries.

2.3.1. A brief history of VI teacher training

While the history of systematic professional teacher training in the area of vision impairment education goes back to the early period of the 20th century (Hatlen, 2000), the history of educational support for children with vision impairment started in the 18th century (McCall, 1997). Holbrook and Koenig (2000) state that children with vision impairment began to receive educational services nearly 200 years ago from:

> '[…] men and women who, despite the prevailing attitudes and practices of their day, believed that children who were blind [sic] were capable of success in education and in life' (xiii).

It seems that educational support for children with vision impairment began to be provided by 'professional' teachers in the period that the first residential schools for children with vision impairment were established in the US (Hatlen, 2000). In these residential schools, children received educational support from 'house-parents' and teachers who had only high school degrees or who were graduates of the schools in which they were employed (Koestler, 1976; cited in Hatlen, 2000).

Although educational provision from professional teachers started in the 19th century, VI teacher training began in the early part of the 20th century. The first university-based teacher preparation course in the area of vision impairment education was established at the University of California in 1918 (Corn and Spungin, 2003). However, the first regularly repeated VI teacher training courses were not established until the early 1920s in the US (Hatlen, 2000). For instance, a six-month training programme (called the 'Harvard Course on Education of the Blind') was established with the co-operation of the Perkins Institution and the Harvard Graduate School of Education in 1921 (Hatlen, 2000). A few years later, a second six-month part was added to the programme, which allowed the programme to offer a Master's degree (ibid.).

In the late 1940s, several universities set up teacher preparation programmes in different areas of 'exceptionality' in the US (Hatlen, 2000; Corn and Spungin, 2003). At the beginning of the 1970s, VI teacher training programmes were influenced by the widespread development of competence-based education for all teacher preparation programmes in the US. Therefore, these training programmes were encouraged to identify the distinctive teacher competencies to teach children with vision impairment (Corn and Spungin, 2003). Following this, competencies required by teachers to support children with vision impairment effectively has been long discussed (see, for example, Spungin, 1978; Swallow, 1978; Bryant, 1978; Barraga, 1981; Holman and Scholl, 1982). In line with this, as previously stated in this chapter, various attempts have been made to determine specialised competencies for teaching children with vision impairment, *over* and *above* those required to teach sighted children.

An international literature review by Douglas et al. (2009) regarding vision impairment education illustrated that competencies and standards have been frequently used as the basis for designing VI teacher training programmes. Despite there being similar aims in designing VI teacher training programmes, the literature illustrates that a variety of approaches and

designs/methods have been applied in VI teacher training programmes, as the next section discusses.

2.3.2. Delivery approaches and designs of VI teacher training

The literature review illustrated that different delivery approaches (i.e. campus-based full-time education and/or distance or open education) with a variety of instructional designs/models (e.g. using on-campus sessions and/or using online learning platforms, hybrid instructional models) have been used in VI teacher training programmes (see, for example, Silberman, Corn, and Sowell, 1996; Corn and Silberman, 1999; Silberman et al., 2004; Ambrose-Zaken and Bozeman, 2010). Historically, a shortage of professionals for meeting the needs of individuals with vision impairment in the US had led preparation programmes to offer alternative approaches (Head and Bishop, 1992; DeMario and Heinze, 2001). In line with this, traditional full-time courses have been supplemented by or replaced with open or distance education (Douglas et al., 2009).

In relation to the increasing number of distance-learning programmes in VI teacher training, there is broad agreement in the literature that distance-learning programmes may provide a wide range of benefits, such as being able to deliver training to a large groups of trainees and offering accessibility for trainees without the need to travel great distances (Corn and Erin, 1996; DeMario and Heinze, 2001; Cooper and Keefe, 2001; Bickford, 2006). In line with the trend in delivering VI teacher training through distance education, a number of studies were conducted to investigate such distance education programmes from a variety of angles. For instance, Koenig and Robinson (2001) evaluated a web-based course in terms of its instruction in braille code skills through investigating feedback from pre-service VI teachers. This study highlighted that online courses might offer a high quality and rigorous approach to delivering instruction in braille code skills when trainees had independent learning skills as well as appropriate

technology skills. As another example, Bickford (2006) examined a distance-learning programme in terms of the achievements of trainees who were enrolled in the programme. The findings of this study indicated that a distance-learning programme might be successful at imparting the required knowledge and skills specific to 'blindness' for VI teachers. Similarly, Ajuwon and Craig (2007) evaluated the self-assessed competencies of graduates of a distance education programme for VI professionals. They found that graduates gained significant competencies for teaching children with vision impairment in several areas through the distance-learning programme, including functional vision assessment.

A few studies also attempted to compare the perceptions of trainees who were enrolled in distance-learning and campus-based teacher training programmes in the area of vision impairment education. For instance, Trief, Decker and Ryan (2004) compared the levels of satisfaction of trainees who took a course on campus and who took the same course via teleconferencing. They reported that although the trainees who took the course via video teleconferencing experienced some technical difficulties, both groups of trainees had positive attitudes towards the course. Likewise, Kim et al. (2012a) compared the levels of satisfaction of distance education and on-campus graduates of a VI personnel preparation programme. While this study found no significant difference between the levels of satisfaction of graduates, the findings of this study illustrated that the graduates from the on-campus programme indicated a higher level of faculty-student and student-student interaction.

While the benefits of distance-learning programmes have been widely acknowledged in the literature, some challenges have also been highlighted, particularly relating to communication and interaction between trainees and instructors. Therefore, the literature suggests that opportunities for communication and interaction between trainees and instructors should be provided effectively in distance education VI teacher training programmes (see, for example, Cooper and Keefe, 2001; Kim et al., 2012a).

In line with these challenges, there is some evidence in the literature that 'effective' virtual learning environments may be created for distance-learning VI teacher training programmes. For instance, McLinden et al. (2006a) designed and developed online resources for a distance-learning VI teacher training programme using problem-based learning (PBL) case scenario activities. The evaluation of this approach provided some evidence to suggest that PBL activities could be adapted in distance-learning VI teacher training courses. The findings of this study also illustrated that it might be possible to create an effective virtual learning environment to enable trainees to engage in PBL activities with appropriate resources, sufficient preparatory training and efficient tutor support (McLinden et al., 2006a; 2006b; 2007). McLinden et al. (2010) afterwards reported that authentic online problem-based learning case scenarios could provide trainees with opportunities to engage 'in close-to real situations that are designed to reflect key challenges they will face in their future professional roles' (p.41).

With respect to VI teacher training programmes, it is also commonly accepted that practicum or internship experience is highly important in order to prepare VI teachers for their future professional roles. For instance, a recent study by Kim et al. (2012b) illustrated that practicum/internship experience was one of the significant positive predictors of perceived effectiveness of a VI teacher preparation programme in relation to job preparedness. As practicum/internship experiences are crucially needed for VI teacher training programmes, the literature suggests that a use of video recording of practicum experiences in personnel preparation programmes (both campus-based and off-campus) might benefit trainees and tutors/instructors. For example, Gale, Trief and Lengel (2010) argue that the use of video could provide pre-service VI teachers with feedback and evaluation regarding their performance with children in authentic classroom settings. In addition to the use of video recording, video clips that demonstrate exemplary teaching by VI teachers have also been accepted as another

effective tool for preparing VI teachers for their future professional roles (see, for example, Trief, Lengel and Baecher, 2013; Trief and Rosenblum, 2016).

To sum up, the literature review illustrates that a variety of delivery approaches and models have been used in VI teacher training programmes. Although a number of studies were conducted to evaluate the effectiveness of delivery approaches and designs of those programmes, there is no evidence in the literature that one approach, design or method is more 'effective' than the other for personnel preparation programmes in the area of vision impairment education. Nevertheless, in order to improve the effectiveness of the training, the literature suggests that some methods may be useful for preparing VI teachers for their future professional roles, including PBL case scenario activities, video clips and practicum/internship experiences.

2.3.3. An overview of VI teacher training in Turkey

In Turkey, the history of educational support for children with vision impairment goes back to the late period of the 19th century (Senel, 1998; Melekoglu, Cakiroglu and Malmgren, 2009). The first educational placement was provided for children with vision impairment as part of a school that was established for deaf students in Istanbul in 1889 (Senel, 1998; Citil, 2009). Citil (2009) reports that separate schools for children with vision impairment began to be opened in the early period of the Republic of Turkey. Since the history of systematic teacher training in the area of vision impairment education started in Turkey in 1952 (Senel, 1998; Citil, 2009), it seems that educational provision had been provided by teachers who had no training in the area of vision impairment education until the mid-1950s.

In accordance with legislation of the Turkish Ministry of National Education (MoNE) in April 1952, the first teacher training programme in the area of vision impairment education was established in Gazi Education Institute [in Turkish: Gazi Eğitim Enstitüsü] in Ankara that same year (Citil, 2009). In the first year, this programme accepted thirty trainees/students from among

teachers who had passed a number of intelligence and knowledge tests (Altunya 2006; cited in Citil, 2009). Binbasioglu (1995) reports this programme was run by foreign tutors (who were mostly from the US) and native tutors who had been trained or had experience in western countries (cited in Citil, 2009). Binbasioglu (1995) also reports that trainees/students in this programme were divided into two groups (i.e. relating to 'deaf education' and 'blind education') and modules of the programme were designed according to these groups as follows (cited in Citil, 2009, p.43):

- Module for 'deaf education': Speech Disorders and Education of the Deaf
- Modules for 'blind education': Anatomy of the Eye and Eye Disorders; Psychology of the Blind; Education and Mental Health of the Blind
- Core and optional modules (for both groups): Psychology of Education; Assessment and Evaluation; Clinical Psychology; Gifted and Talented Children; History of Special Education; Music; English.

This programme ran for two years, during which time sixty trainees graduated (Senel, 1998). The programme was closed in accordance with legislation of the MoNE in 1955 (Citil, 2009). Thus, VI teacher training was interrupted for more than thirty years in Turkey. Citil (2009) reports that personnel preparation in the area of special education was provided by non-periodical in-service courses after the mid-1950s in Turkey. A systematic teacher training programme in the area of vision impairment education was reinitiated in 1986, when a special education department was established in Gazi University in order to prepare teachers to work with individuals with intellectual disabilities and individuals with vision impairment (Senel, 1998; Citil, 2009).

Similar to all undergraduate-level programmes in Turkey, this programme accepted trainees according to the score of the national exam(s) which were conducted by the national Centre of Measuring, Selection and Placement (CoMSP) [in Turkish: Ölçme, Seçme ve Yerleştirme Merkezi/ÖSYM] for students to be able to enrol in universities after high school (CoHE, 2014). From the early years of the 2000s to 2016, this programme accepted approximately 30-70

students/trainees each year according to their scores in the national exam(s) (CoMSP, 2018, online).

This programme has provided teacher training in the area of vision impairment education for many years in Turkey. However, after 2014 graduates of this programme began to be employed by the MoNE as 'Special Education Teachers' regardless of their expertise in the area of vision impairment education (Gazi University, 2018, online). In 2016 this VI teacher training programme and other teacher training programmes in the areas of hearing impairment and intellectual disabilities were combined into the 'Special Education Teacher Training Programme' by the Council of Higher Education (CoHE) (CoHE, 2016, online). Thus, after taking core modules within three years, students/trainees are able to become 'specialised' in one or more specific areas in their final year, including (1) intellectual disabilities, (2) gifted and talented children, (3) learning difficulties, (4) autism spectrum disorders, (5) hearing impairments and (6) vision impairments (CoHE, 2016, online).

In Turkey, twenty-seven universities have a special education teacher training programme offering a bachelor's degree after 4 years of undergraduate level training (CoMSP, 2018, online). Twenty of these universities are state-funded (including Gazi University) and seven of them are non-profit foundation universities (ibid.). It may be expected that most of these twenty-seven universities provide 'specialist' knowledge, understanding and skills in the area of vision impairment education. However, most of these universities do not have a specific sub-programme in respect of vision impairment education. Therefore, it may well be argued that Gazi University is still the most important institution in Turkey, which provides specialist training in the area of vision impairment education.

Knowledge, understanding and skills/competencies required by VI teachers in Turkey

In Turkey, the Ministry of National Education (MoNE) identified the first official teacher competencies in 1998 (MoNE, 2017b). Therefore, it seems that there was no identified knowledge, understanding and skills/competencies for VI teachers until the early years of the 2000s in Turkey. In 2008, the MoNE identified subject-matter competencies for teachers in fourteen different subjects, including the field of special education (MoNE, 2017b). In these subject-matter competencies for teachers, special education was divided into three categories, namely vision impairment, hearing impairment and intellectual disabilities (MoNE, 2008). The competencies for teachers in the field of special education were divided into the following five domains: (1) 'communication and social skills'; (2) 'modifying the programme'; (3) 'collaborating with the school, families, and other professionals'; (4) 'behavioural management' and (5) 'getting involved in professional development activities' (MoNE, 2008; Kesiktas and Akcamete, 2011). Nevertheless, these standards included some distinctive competencies in relation to these teachers' specific specialisations. For example, those that were developed for VI teachers included distinctive knowledge, understanding and competencies/skills in respect of vision impairment education, such as teaching mobility skills and carrying out functional vision assessments (MoNE, 2008; Kesiktas and Akcamete, 2011).

In relation to these subject-matter competencies which were developed in 2008, Kesiktas and Akcamete (2011) conducted a survey with 224 teachers of learners with vision impairment working in special education schools for pupils with vision impairment or Guidance and Research Centres (GRCs) in Turkey in order to determine the degree to which competencies were addressed during their pre-service training (i.e. VI teacher training). The findings of this study indicated that most of the VI teachers faced problems in gaining and implementing knowledge and skills to be able to work efficiently with pupils with vision impairment. This study, therefore, recommended that a number of specific knowledge and skill areas should be

covered in the pre-service training programme, including knowledge and skills to be able to work with pupils with multiple disabilities and vision impairment (MDVI).

The MoNE developed all teacher competencies through a holistic approach in 2017 (MoNE, 2017b). In accordance with these competencies, it is expected that *all* teachers in Turkey should have generic competencies in the following three areas: (1) professional knowledge (i.e. knowledge in their 'expert' area), (2) professional skills (e.g. ability to plan the teaching process) and (3) attitudes and values (e.g. ability to act with consideration of national values) (MoNE, 2017b). No identified specific competency for teachers was determined according to their 'expert' area, including the field of special education. Nevertheless, these generic competencies indicate a number of common points for teachers to support all students, including students with special educational needs (SEN). For instance, according to these competencies, it is required that all teachers should have knowledge, understanding and skills for including all students in class by arranging school materials and environment in accordance with their needs (MoNE, 2017b).

At this point it is important to note that since there were no identified special competencies for Special Education Teachers in Turkey (including VI teachers), the previous competencies required by VI teachers, which were developed by the MoNE in 2008, were considered throughout this study (the English translation of these competencies can be seen in Kesiktas and Akcamete, 2011).

2.3.4. An overview of VI teacher training in England

In England, a specialist qualification has been required for teachers to work with children with vision impairment since 1907 (McCall, 1997). In accordance with government regulations in England, the specialist qualification, which was awarded as a diploma by the College of

Teachers of the Blind for many years, became mandatory for teachers within three years of beginning their work in 'schools for the blind' (ibid.).

In the early years of the 1900s, the College of Teachers of the Blind was the only establishment responsible for professional teacher training in the area of vision impairment education in the UK until the first university-based training course for teachers of children with vision impairment was established in the University of Birmingham (McCall, 1997; McLinden et al., 2007). In 1956, the University of Birmingham instituted a course for training teachers to work with children with vision impairment awarding a 'Certificate for Teachers of the Blind' (Watson, 1961). McCall (1997) reports that the University of Birmingham course subsumed the national role of the College of Teachers of the Blind, offering training in the area of vision impairment education for teachers from across the UK and around the world.

Until the early 1980s, the University of Birmingham provided a campus-based course in order to prepare teachers in the area of vision impairment education. Alongside with the full-time version of this programme, a distance education version was developed with government support in 1981 (McLinden et al., 2007). McLinden et al. (2007) explained reasons for developing the distance-learning programme in line with an increase in number of children with vision impairment in local mainstream schools in the 1970s. They reported that there was an increased demand for more flexible training for teachers in the UK and the distance-learning programme enabled teachers to have flexible training in the area of vision impairment and education. The full-time version of this programme was closed in the 1990s (McLinden et al., 2007). The programme still delivers VI teacher training through distance education, providing university-based study weekends and regional tutorials (University of Birmingham, 2018, online).

This programme accepts applicants who are teachers with a Department for Education (DfE) Qualified Teacher Status (or equivalent) and with a minimum of three years' teaching experience (University of Birmingham, 2018, online). It seems that this programme has accepted trainees with teaching experience since it was established, as Watson (1964) reported that the National Advisory Council on the Training and Supply of Teachers provided some advice in a report entitled 'Training and Supply of Teachers of Handicapped Pupils' in 1954. Accordingly, it was recommended that specialist training should be provided for teachers who had minimum two years' experience in mainstream schools and had preliminary experiences with handicapped [sic] children for about one year, preferably in a special education school. Therefore, it seems that the VI teacher training programme at the University of Birmingham has accepted trainees who had previous teaching experience since it was established.

In England, on behalf of the Department for Education (DfE), the National College for Teaching and Leadership (NCTL) (recently replaced by the Department for Education and Teaching Regulation Agency) explains the 'mandatory qualification' (MQ) required by VI teachers (i.e. Qualified Teachers of Children and Young People with Vision Impairments/QTVIs) as follows:

> 'So that children and young people [up to age 25] with sensory impairments receive the best quality education and care, teachers of classes of children and young people who are deaf, who have vision impairments (VI) and who are deafblind are required to hold an additional specialist qualification in addition to qualified teacher status (QTS) or qualified teacher learning and skills (QTLS). This qualification is known as the mandatory qualification for teachers of pupils with sensory impairments and is designed to prepare teachers to work effectively with children and young people who are deaf, who have VI or who are deafblind' (NCTL, 2016, p.3).

The Mandatory Qualification in the area of vision impairment education is currently provided within two institutions in England (i.e. University of Birmingham and Liverpool John Moores University/St Vincent's School) (NatSIP, 2017). Since approximately one hundred specialist teachers are trained in the area of vision impairment education each year, the University of Birmingham is the largest specialist teacher training provider in the area of vision impairment education in England and also in the UK (University of Birmingham, 2018, online).

Knowledge, understanding and skills/competencies required by VI teachers in England

Mason (1997) reports that knowledge, understanding and skills/competencies required by VI teachers began to be discussed in the 1990s in the UK. During the 1990s the Visually Impaired Trainers Consultative Group (VITCG), whose members included representatives of the universities involved in teacher training in the field of vision impairment education, identified a number of competencies that VI teachers should be able to demonstrate after completing their mandatory training in the area of vision impairment education (Mason, 1997; Douglas et al., 2009). Mason (1997) reports that these competencies were developed within the following two components: (1) 'knowledge and understanding' (e.g. the anatomy and physiology of visual functions, the principles of assessment of functional vision) and (2) 'practical ability' (e.g. using materials designed to evaluate and train residual vision, teaching braille).

Douglas et al. (2009) report that in the late 1990s the UK Government's 'Programme of Action' set out a broader agenda for pupils with special educational needs (SEN) in the UK, including specialist training for VI teachers. Accordingly, the special educational needs specialist standards were identified within the following four sections: (1) 'core' standards; (2) 'extension' standards; (3) standards in relation to 'roles and responsibilities' of SEN specialists; and (4) standards relating to 'skills and attributes' of SEN specialists (ibid.). After the development of these standards, VI teachers were required to demonstrate knowledge, understanding and skills in relation to the 'core' standards and some elements of the 'extension' standards (incorporated within the previous competencies that were developed by the VITCG), as well as all standards in relation to 'roles and responsibilities' and 'skills and attributes' of SEN specialists (ibid.).

More recently, the NCTL (on behalf of the DfE) set out knowledge, understanding and skills required by VI teachers 'so that those holding the [mandatory] qualification(s) make maximum impact on practice' (NCTL, 2016, p.14). Therefore, a number of MQ outcomes for VI teachers

in England were developed within the following eight domains: (1) 'professional qualities and attributes', (2) 'current legislative and educational framework', (3) 'vision and vision impairment', (4) 'teaching and learning', (5) 'the specialist curriculum', (6) 'social, emotional development and well-being', (7) 'supporting transition/transfer' and (8) 'partnership working' (NCTL, 2016). Hence, it is required that the VI teacher training programme in England should ensure that VI teachers (i.e. QTVIs) have gained knowledge, understanding and skills in relation to these eight domains.

2.3.5. Summary

The literature review highlights the following key points in relation to VI teacher training in Turkey and England:

- University-based VI teacher training started to be provided almost at the same time in Turkey (1952) and in England (1956). However, in Turkey the systematic university-based VI teacher training was delayed until the late 1980s.
- Considering their historical backgrounds and current situations, one university plays an important role in delivering VI teacher training in each country (i.e. Gazi University and University of Birmingham).
- Delivery approaches of programmes that provide teacher training in the area of vision impairment education are different in Turkey and England. While VI teacher training is delivered within 4-year undergraduate campus-based programmes as a sub-area of special education in Turkey, this training is delivered within the 2-year postgraduate distance education programme in England.
- The required knowledge, understanding and skills/competencies of VI teachers had some similarities in Turkey and England, such as carrying out functional vision assessment and understanding the impact of vision impairment. However, the

skills/competencies for VI teachers in England have usually been seen as *over* and *above* than other general classroom teacher competencies, while these skills/competencies have been seen as being parallel (but different) to general classroom teacher competencies in Turkey (except the latest changes in teacher competencies in Turkey).

Consequently, the literature review illustrated the recent developments regarding the approach to the concept of VI teachers in both countries. Arguably, these updates might be a result of a shift towards understanding the role/function of VI teachers in these countries. Furthermore, the literature indicates that the role/function of VI teachers has dramatically changed over the years. Therefore, the next section discusses the recent issues relating to the reinterpretation of the role/function of VI teachers in the literature.

2.4. Reinterpreting the role/function of teachers of learners with vision impairment

There is some evidence in the literature that the approach towards the role/function of VI teachers has been reinterpreted in accordance with recent developments in inclusive educational practice. For example, there is an increasing interest in applying Bronfenbrenner's theoretical approaches of human development to the field of vision impairment education with a particular focus on the role/function of VI teachers in the literature (e.g. McLinden and McCracken, 2016; McLinden et al., 2016; 2017a; 2017b). Therefore, this section firstly provides a brief summary of Bronfenbrenner's theory of human development. It then discusses issues that emerged from the relevant literature concerned with the reinterpretation of the distinctive role/function of VI teachers as 'agents of change'.

A brief overview of Bronfenbrenner's theory of human development

Nearly more than four decades ago, Urie Bronfenbrenner offered a theoretical model towards human development, positing that relations and interactions between the person and their 'ecological' environment affect human development. According to Bronfenbrenner's

theoretical perspective, human development is accepted as the person's evolving conception of their ecological environment and their relation to it (Bronfenbrenner, 1979). Hence, his theoretical approach principally indicates that the development of a child is profoundly affected by the interactions between the immediate settings of the child. For example, Bronfenbrenner (1979) argues that:

> 'A child's ability to learn to read in the primary grades may depend no less on how he is taught than on the existence and nature of ties between the school and the home' (p.3).

Bronfenbrenner describes the ecological environment as a 'nested arrangement of structures, each contained within the next' (Bronfenbrenner, 1977, p.514) 'like a set of Russian dolls' (Bronfenbrenner, 1979, p.3) (see 'Figure 1' in the following section). Bronfenbrenner (1976; 1977; 1979; 1992) expresses the idea of 'nested concentric structures of ecological environment' within the terms of *micro-*, *meso-*, *exo-* and *macrosystems.* He explains the *microsystem* as a complex of relations between the developing person and their environment in an immediate setting (e.g. home, school and workplace) in which the individual engages in 'particular' activities in 'particular' roles (e.g. daughter, parent and teacher) (Bronfenbrenner, 1977, p.514).

He describes the *mesosystem* as a system of microsystems, which comprises the interrelations among major settings containing the developing person at a particular point of their life (Bronfenbrenner, 1977, p.515). Thus, a *mesosystem* of a child includes the interrelations among two or more settings in which the child actively participates, such as relations among home, school and their neighbourhood peer group (Bronfenbrenner, 1979, p.25). Bronfenbrenner (ibid.) explains the following four types of interconnections which occur within the *mesosystem* (pp.209-210):

- 'Multi-setting participation' (i.e. the developing person participates in more than one setting and/or other persons participate in the same settings)

- ‘Indirect linkage’ (i.e. a third party serves as an *intermediate* link between persons in the two settings)
- ‘Inter-setting communications’ (i.e. messages transmitted from one setting to the other by providing specific information to persons in the other setting)
- ‘Inter-setting knowledge’ (i.e. obtaining information that exists in one setting about the other setting through external sources).

While the ‘developing person’ is assumed as being actively involved within and between the micro- and mesosystems, s/he is not assumed as being actively involved within the exo- and macrosystems of their ecological environment. For instance, Bronfenbrenner (1977) explains the e*xosystem* as an extension of the mesosystem embracing other social structures in which the developing person is not involved but which has an influence on their development. In the case of a child, for example, an *exosystem* may include a school class attended by an older sibling or elsewhere in which events take place that affect the child, or are affected by the child (Bronfenbrenner, 1979).

According to Bronfenbrenner (1977), the *macrosystem* does not refer to specific contexts that affect the life of a person as in other systems; rather, it refers ‘to general prototypes, existing in the culture or subculture, that set the pattern for the structures and activities occurring at the concrete level’ (p.515). He also adds that:

> ‘Most macrosystems are informal and implicit – carried, often unwittingly, in the minds of the society’s members as ideology made manifest through custom and practice in everyday life’ (p.515).

After a period of years of developing this theoretical framework (known commonly as ‘ecological systems theory’ or ‘ecological theory’), Bronfenbrenner elaborated and revisited his theory as shifting the focus from the environmental influences on human development to developmental processes (Anderson, Boyle and Deppeler, 2014). However, as Tudge et al.

(2009) argue, Bronfenbrenner always stressed person-context interrelation and he did not exclusively focus on contextual factors of human development. Therefore, 'the single most important difference' of this approach was concerned with *processes* of human development (Tudge et al., 2009, p.199, original *italics*). Bronfenbrenner (1992) explains his reformulated approach towards the ecology of human development (known widely as the 'bioecological model of human development' or 'bioecological systems theory') thus:

> 'The ecology of human development is the scientific study of the progressive, mutual accommodation, *throughout the life course*, between an active, growing human being and the changing properties of the immediate settings in which the developing person lives, as this process is affected by the relations between these settings, and the larger contexts in which the settings are embedded' (p.188, original *italics*).

Accordingly, Bronfenbrenner emphasises the dimension of time as offering the *chronosystem* model in this reformulated model. He mainly argues that life events or experiences (either in the external environment or within the 'organism') alter the existing relation between person and environment (either in short term or long term) and thus, they instigate developmental change. Including the dimension of time, Bronfenbrenner (2001) explains the 'bioecological model of human development' with the four principal elements – process, person, context, and time (PPCT) – arguing that human development is influenced by the *dynamic* and *interactive* relationships of these elements.

Although Bronfenbrenner's ecological systems model of human development made a substantial contribution to research on human development by emphasising the relations and interactions between the person and their environment within the human developmental process, it could be argued that Bronfenbrenner's theoretical model has offered limited insights into the understanding of the complexity of human development. In essence, Bronfenbrenner emphasises the two-ways of the interaction between the developing person and their environment within the continuing process of human development. However, as Christensen (2016) argues, 'Bronfenbrenner focuses on the individual's drive and ability to influence

relative to their specific environment and not so strongly on the individual's sphere of influence' (p.23). Therefore, although Bronfenbrenner (1992) revisited the ecological systems theory as 'it was about the nature and developmental contribution of the environment than about the organism itself' (in Bronfenbrenner, 2005, p.108), it could be argued that he did not sufficiently focus upon the 'organism itself' in the revisited model, which is commonly known as the bioecological model of human development.

In line with this, as Darling (2007, p.204) implied, by putting the developing individual at the centre of the circles of the systems, Bronfenbrenner highlighted the *activity* of the developing individual throughout his/her life course within their own developmental process. However, it may well be argued that Bronfenbrenner recognised the developing individual as a *passive* and *isolated* 'organism' surrounded by multi-layered systems (ibid. p.204, *italics* added,). Similarly, Christensen (2016) states that Bronfenbrenner's model 'does not see the individual as an independent actor' (p.26). Therefore, he argues that Bronfenbrenner's model is required to be 'completed on an intra-level which describes the individual's resilience and entrepreneurial skills in a social context' (p.26).

Nevertheless, as Bronfenbrenner and Evans (2000) highlighted, the focus of bioecological model of human development was 'not on analysing the development of human beings as such, but on further developing the scientific tools […] that are required in order to improve our understanding of the *conditions* and *processes* that shape human development' (p.9, *italics* added). Accordingly, it could be argued that although Bronfenbrenner did not focus upon 'the individual's sphere of influence [to their environment]' (Christensen, 2014, p.23), his theoretical model provided valuable insights into complex factors that shape human development. Therefore, as the following section explains, his theory was utilised as a

theoretical model in a number of studies that did not directly intend to conduct research into human development.

2.4.1. Analysing the role/function of VI teachers through Bronfenbrenner's ecological model of human development

Although Bronfenbrenner did not develop his theory of human development particularly in relation to the field of education, his theory was utilised as a theoretical model in many studies in the education area that did not directly aim to carry out research into human development (see, for example, Taylor, 2005). His theoretical model was also reinterpreted in the field of education with a particular focus on inclusive practice for learners with sensory impairments, including learners with vision impairment (e.g. Swanwick, 2014; McLinden and McCracken, 2016; Hewett et al., 2017; Gladstone et al., 2017; McLinden et al. 2016; 2017a; 2017b). For example, using Bronfenbrenner's theoretical framework, McLinden et al. (2016; 2017a; 2017b) analysed the distinctive role of VI teachers in the UK by putting the learner 'at the centre of a complex and multi-layered ecology that is governed by a range of proximal and distal influences' (McLinden et al., 2017b, pp.575-576) (see 'Figure 1').

According to McLinden et al. (2016), the *microsystem* in which the learner with vision impairment is engaged in learning may include teachers, other learners, physical and virtual learning spaces, access to curriculum resources, teaching activities s/he engages with and relationships s/he develops with peers, tutors and other staff. With respect to this, McLinden et al. (2017b) state that the VI teacher has a distinctive role within the *microsystem* as 'mediating interactions between the learner and the learning environments' (McLinden et al., 2017b, p.577), such as advising on classroom arrangement or student seating positioning (McLinden et al., 2016; 2017b).

Since relationships and connections within the *mesosystem* are 'occurring, changing and evolving' (Anderson, Boyle and Deppeler, 2014, p.29), McLinden et al. (2017) state that the

central roles of VI teachers within the *mesosystem* are to 'develop and promote connections between structures within the child's microsystems and make links with distal influences in the outer systems' (p.577). Practical examples of VI teachers within the *mesosystem* may include facilitating support networks within the school and making links between families and relevant services (McLinden et al., 2016).

The *exosystem* level for learners would include the wider school community, leadership structures, teaching and non-teaching staff and school culture (Anderson, Boyle and Deppeler, 2014, McLinden et al., 2017b). In line with this, McLinden et al. (2017b) state that the central role of VI teachers within the *exosystem* level is to 'shape distal influences in order to facilitate learner engagement and participation in education' (p.577). Access arrangements for public exams and organising activities to raise awareness of vision impairment among peers and other teachers may be considered as some of the practical examples of the roles of VI teachers within the *exosystem* of the learner (McLinden et al., 2016; 2017b).

In relation to the *macrosystem* level of the learner, McLinden et al. (2017b) state that VI teachers do not have any direct role in the UK. However, they provide some practical examples regarding the role of VI teachers at the *macrosystem* level of the learner in the UK, such as advising mainstream schools regarding their responsibilities in relation to SEN legislation and promoting a policy to ensure that the learner with vision impairment can be fully included in all subjects (McLinden et al., 2017b, p.579).

To sum up, according to Bronfenbrenner's theoretical approaches towards human development, given the notion of the progressive nature and the multi-dimensional aspects of human development, the literature emphasises that a key aspect of the role of VI teachers is to facilitate learner engagement and their participation in education and society through promoting progressive and mutual accommodation between the active learner and their different learning

environments over a given timeframe (McLinden et al., 2017a; 2017b). Figure 1 illustrates the potential role of VI teachers within the *ecosystem* of the learner regardless of different national educational contexts.

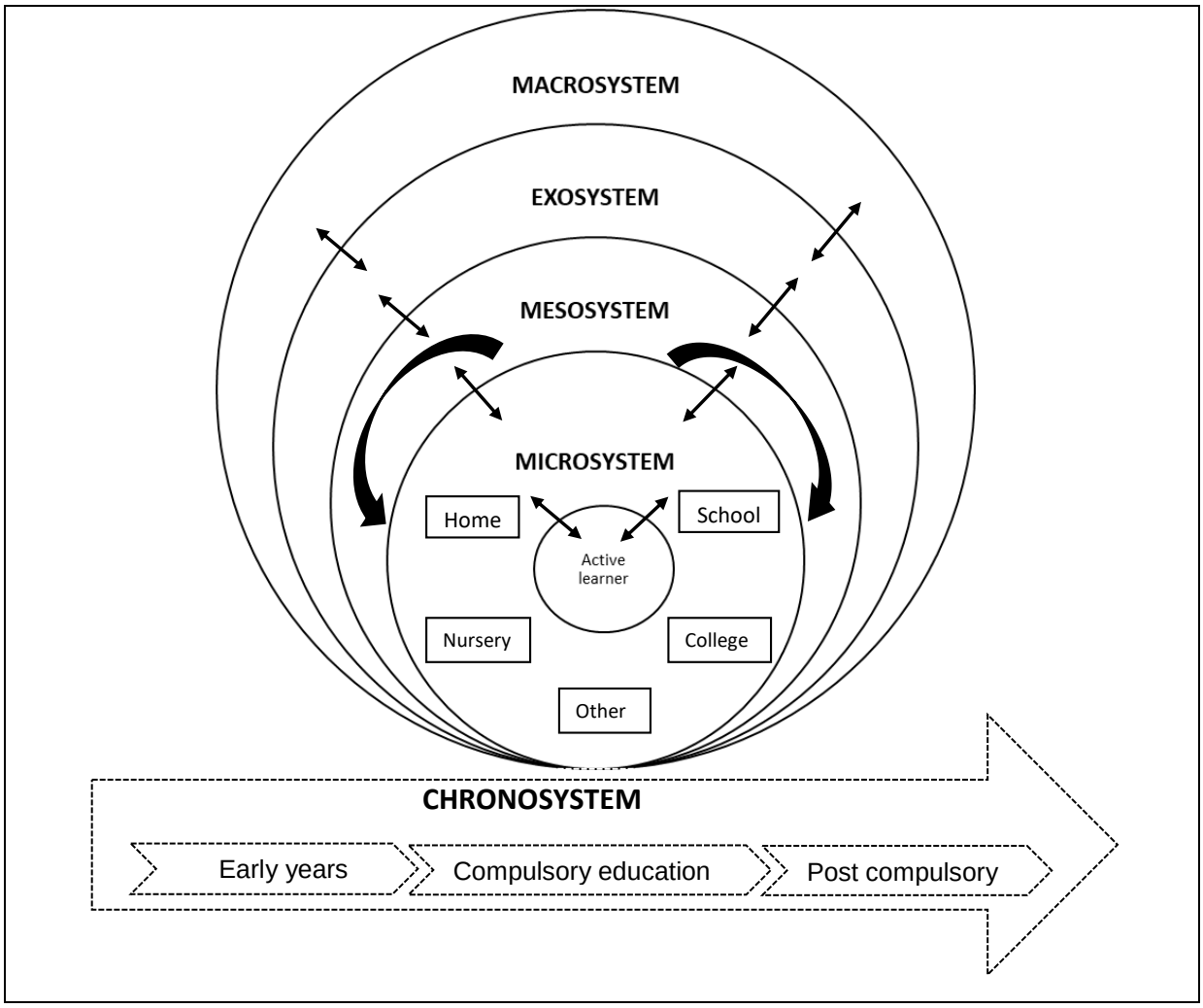

Figure 1. Mapping the potential role of VI teachers onto Bronfenbrenner's bioecological systems theory (adapted from McLinden et al. 2016; 2017a; 2017b)

2.4.2. Preparing VI teachers as 'agents of change'

As Pantic and Florian (2015) state, calls for preparing teachers as 'agents of change' have become common in line with recent developments in policies around the world in order to reduce educational inequalities and improve outcomes for all learners. For example, the MQ outcomes for VI teachers in England (QTVIs) emphasise that as a professional quality and

attribute, VI teachers need to 'understand the role of the QTVI as an agent of change' (NCTL, 2016, p.15). However, 'agent of change' is a term that has been used for all teachers in the literature for many years (e.g. Fullan, 1993; Priestley et al., 2012). In contrast, this term has recently been used for VI teachers in the literature. For example, McLinden et al. (2017b) reinterpreted the distinctive role of VI teachers in the UK as 'agents of change' through using Bronfenbrenner's bioecological systems theory.

With regard to preparing teachers as 'agents of change', Pantic and Florian (2015) argue that the conceptualisation of teachers as 'agents of change and inclusion' emphasises a need to develop teachers' skills in working with other agents in order to remove structural and cultural barriers for some learners' learning and participation. In line with this, they highlight that a teacher competence as an 'agent of inclusion' should cover 'working collaboratively with other agents, and thinking systematically about the ways of transforming practices, schools and systems' (p.346). Accordingly, regardless of different national education contexts, the distinctive role of the VI teacher may include collaboration with other agents (e.g. families, other teachers, other professionals) within a range of systems (both at *proximal* and *distal* levels). For example, McLinden et al. (2017b) define the roles of VI teachers as 'agents of change' as mediating between the learner and their changing close environments (e.g. creating safe learning environments) and promoting 'progressive' and 'mutual' accommodation between the learner and changing learning environments in order to develop and promote independence (e.g. visiting home to support families in managing and promoting learning) (p.570). In brief, the role of VI teachers as 'agents of change' may be defined as removing structural and cultural barriers to learning and participation for learners with vision impairment through collaborating with other agents within a range of systems.

2.5. Conceptualising the research problem

Bryman (2016) states that existing literature is not only an important element to identify what is already known about the topic, but also to alert the researcher to how useful and limited the main concepts that have been employed before were. This section, therefore, discusses issues that emerged from the literature in order to clarify how the research problem of the study was conceptualised. It then explains how the theoretical framework and research questions of the study were developed in line with the issues that emerged from the literature.

2.5.1. Issues that emerged from the literature

As previously stated, prior to conceptualising the research problem, the literature was reviewed in order to find out (1) what is known about the concept of VI teachers and (2) what is known about VI teacher training. The literature review provided information regarding the distinctive role/function of teachers of learners with vision impairment and teacher training in the area of vision impairment education, including the Turkish and English contexts. The literature review also illustrated that the role/function of VI teachers was reinterpreted in line with recent developments in inclusive practices for learners with vision impairment (particularly as 'agents of change'). Nevertheless, a number of issues were raised throughout the review process of the literature in relation to the Turkish and English contexts. For instance, an overarching question that was raised by the literature review was:

- Considering that VI teachers have a key role as 'agents of change' in reducing barriers to participation in education and society for learners with vision impairment, how *should* training programmes prepare VI teachers for their roles as 'agents of change' in Turkey and England?

In line with this, the issues that emerged from the literature regarding the Turkish and English contexts were discussed within the following three 'distinct' areas in this section: (1) teachers

of learners with vision impairment, (2) teacher training in the area of vision impairment education and (3) reinterpreting the role/function of teachers of learners with vision impairment.

Teachers of learners with vision impairment

Despite different educational and legislative contexts, the literature emphasises that VI teachers may have some common roles/functions, such as performing functional vision assessments, facilitating access to the curriculum and providing advice and guidance for families. With regard to the role/function of VI teachers, while there were a number of studies investigating the role/function of VI teachers in the English context in the literature, there were relatively limited studies for the Turkish context. However, a number of questions emerged from the literature regarding both countries' contexts as follows:

- How do VI teachers conceptualise their distinctive roles in Turkey and England? What are the similarities/differences between VI teachers' conceptualisations of their roles in these countries?
- How do VI teachers perceive their distinctive roles/functions in relation to additional/expanded core curriculum areas in Turkey and England? How do their perceptions differ (and not differ) from each other?
- Does the nature of the advisory role of VI teachers for families differ according to the national country context? If so, how?

Teacher training in the area of vision impairment education

The literature review provided information regarding VI teacher training (i.e. delivery approaches, programme designs) and presented historical overviews of the VI teacher training programmes in Turkey and England (i.e. Gazi University and the University of Birmingham). With regard to teacher training in the area of vision impairment education, the literature review illustrated that much attention was given to delivery approaches and designs of VI teacher

training programmes rather than to a connection between the role of VI teachers and their training. It also demonstrated that there were relatively limited studies on teacher training in the area of vision impairment education in Turkey. Accordingly, a number of questions emerged from the literature as follows:

- What are the views/opinion of VI teachers about their training in the area of vision impairment education in Turkey and England? Do they feel their training is adequate/enough to prepare them for their roles?
- What are the views/opinions of VI teachers in Turkey and England regarding their training in relation to their roles in providing educational support in additional/expanded core curriculum areas?
- What are VI teachers' views/opinions in Turkey and England regarding their training in relation to their collaborative roles, such as providing guidance for families?
- How do the views/opinions of VI teachers in Turkey and England differ (or not differ) from each other regarding their teacher training in vision impairment education area?

Reinterpreting the role/function of teachers of learners with vision impairment

The literature review demonstrated that the role/function of VI teachers was reinterpreted in recent years particularly in relation to developments in inclusive practices. In line with the recent developments, the literature also suggested that using Bronfenbrenner's theoretical approaches towards human development as a conceptual lens might help gain a better understanding of the role/function of VI teachers. In accordance with this theoretical approach, the following questions emerged from the literature:

- How do VI teachers perceive their role/function within and between different layers of the *ecosystem* of the learner in Turkey and England?

- How do VI teachers perceive their role/function in promoting progressive and mutual accommodation between the learner and their changing learning environments in Turkey and England?

2.5.2. The theoretical framework of the study

Maxwell (1996) states that a conceptual context (or conceptual framework) is a formulation of a tentative theory of what is going on with the phenomena of the study. It is, therefore, called a 'theoretical framework for the study' (p.25). According to Maxwell (ibid.), the conceptual framework of the study is 'something' that is *constructed* by the researcher (p.27, original *italics*). He argues that researchers can combine pieces from elsewhere in order to develop the conceptual framework (e.g. from their own experiential knowledge, pilot studies, existing theory/research and thought experiments) but the overall structure of the framework should be built by researchers. As previously noted in 'Chapter 1: Introduction', the researcher has had neither training to be a VI teacher, nor any previous teaching experience with learners with vision impairment. Therefore, the conceptual/theoretical framework of this study was mainly built upon existing theory and research rather than 'the researcher's own experiential knowledge'.

The literature review illustrated that a range of delivery designs and methods were applied in VI teacher training programmes in accordance with the different characteristics of national approaches in teacher training systems. However, the literature review mainly revealed that despite differences in educational and legislative contexts, the approaches towards the distinctive role/function of VI teachers have a number of common features. For example, one of the key roles of VI teachers is commonly seen as facilitating curriculum access for learners with vision impairment, such as teaching braille or providing tactile materials. Accordingly,

this study was shaped on the basis of the common characteristics of VI teachers in line with the issues which emerged from the literature.

With regard to the distinctive role/function of VI teachers, the literature suggested that Bronfenbrenner's theoretical approaches of human development might help gain a better understanding of the roles of VI teachers within a range of systems. The strength of this framework was also highlighted as it provides a holistic analysis that accounts for different cultural, national and local systems (see, for example, McLinden and McCracken, 2016). This study did not only intend to provide a holistic perspective regarding VI teacher training in each county settings but also aimed to provide a comparative analysis for both countries in order to 'see various practices and procedures in a very wide context that helps to throw light upon them' (Phillips and Schweisfurth, 2014, p.17). Therefore, it was considered that using Bronfenbrenner's theoretical framework as a conceptual lens would provide a consistent language and structure for the analysis and comparison of the two countries.

Creswell (1994) states that a design of a study in human and social sciences begins with the selection of a topic and a paradigm that helps to understand the phenomena. As explained in 'Chapter 1: Introduction', this study was basically concerned with how VI teachers in Turkey *should* be prepared for providing 'better' educational practices for learners with vision impairment to enable their full participation in education and life. Accordingly, a pragmatist approach was assumed as a research paradigm of the study since this study was mainly concerned with 'what works' or 'does not work' (Creswell and Plano Clark, 2011) for VI teacher training programmes in relation to the distinctive roles of VI teachers.

Creswell and Plano Clark (2011) state that pragmatism draws on several ideas considering both objective and subjective knowledge, focusing on the consequences of research rather than the methods. As expressed in 'Chapter 1: Introduction', one of the initial aims of the study was to

inform policy-makers and decision-makers regarding VI teacher training in Turkey. Therefore, it seemed that selecting pragmatism as a research paradigm for this study would provide an insight into 'what works or does not work' for the VI teacher training programme in Turkey.

In terms of the approach to theory development, Feilzer (2010) states that 'pragmatism as a research paradigm supports the use of […] a continuous cycle of abductive reasoning while being guided primarily by the researcher's desire to produce socially useful knowledge' (p.6). In line with the research paradigm of the study (i.e. pragmatism), therefore, it may well be argued that abductive reasoning was used throughout the research process.

2.5.3. Conceptualising the research questions

Maxwell (1996) states that since research questions are directly linked to all components of the research design, they will have an influence on each part of the study. Therefore, he argues that research questions are 'at the heart of research design' (p.49). Formulating research questions requires a number of criteria. For example, Bryman (2016) states that research questions should be 'clear', 'researchable', and have some connections with established theory and research (p.83). Considering these issues, the research questions of the study were conceptualised in line with the questions that emerged from the literature. Accordingly, the research questions of the study were conceptualised as follows:

(1) How do VI teachers conceptualise their roles *with* the learner (*proximal* influences) and with other people *around* the learner (*distal* influences) within and between immediate/external environment(s) of the learner in Turkey and England?

   a. What are the similarities/differences between VI teachers' conceptualisations of their roles in Turkey and England?

(2) How well do VI teacher training programmes in Turkey and England prepare VI teachers for their *proximal* and *distal* roles/influences from the points of view of programme stakeholders?

    a. What are the similarities/differences between the views/opinions of programme stakeholders regarding the VI teacher training in relation to the distinctive roles of VI teachers (both at *proximal* and *distal* levels) in Turkey and England?

After conceptualising the research questions of the study, the following overarching question was raised in line with the research aims:

(3) What can be learnt from the VI teacher training programme in England for the Turkish context?

Conclusion

In order to illustrate how the research questions of the study were conceptualised, this chapter discussed issues that emerged from the literature relating to the concept of the VI teacher. It also provided relevant information regarding the topic to be studied. Consequently, the following key issues emerged from the relevant literature:

- Despite different educational and legislative contexts, VI teachers appear to have a number of common roles/functions. The literature suggests that one of the main distinctive roles of VI teachers is to reduce potential barriers faced by learners with vision impairment through facilitating curriculum access.
- It is widely accepted that VI teachers should have 'disability-specific' knowledge, understanding and skills/competencies in the literature. In line with this, it is required that VI teachers should have knowledge, understanding and skills/competencies in relation to additional/expanded core curriculum areas.

- A variety of delivery approaches, designs and methods have been used in VI teacher training programmes. Although there is no evidence that one approach, design or method is more 'effective' than others for VI teacher preparation programmes, some designs and methods may improve the training of VI teachers, such as PBL case scenario activities, video clips and practicum/internship experiences.
- There has been a shift in the approach towards the role/function of VI teachers particularly in line with recent developments in inclusive practices for learners with vision impairment. Recently, the function of VI teachers has come to be widely defined as 'agents of change'. As 'agents of change', the role/function of VI teachers can be broadly defined as removing structural and cultural barriers to learning and participation for learners through collaborating with other agents (e.g. families, other professionals) within a range of systems (e.g. home, school).
- There is an increasing interest in applying Bronfenbrenner's theoretical approaches of human development to the field of vision impairment education with a particular focus on the distinctive role/function of VI teachers. It seems that using Bronfenbrenner's ecological model of human development as a conceptual lens might help gain a holistic understanding of the roles/functions of VI teachers within and between the inner and remote systems of the learner.

In line with these issues, this chapter illustrated how the research problem of the study was conceptualised. It also explained the theoretical framework of the study in order to illustrate how the research questions of the study were conceptualised. The next chapter, entitled 'Chapter 3: Methodology', will describe how these research questions were addressed throughout the study from philosophical, methodological, ethical and practical aspects.

CHAPTER 3

METHODOLOGY

Introduction

This chapter explains how the research questions of the study were addressed from philosophical, methodological, ethical and practical aspects. The chapter first discusses the research approach by describing the rationale behind the study as well as philosophical approaches to the study. It then explains the process of designing the research, including the reasons for using a mixed methods approach. This is followed by explaining the rationale behind selecting the research design frame of the study, which is a comparative-case study (CCS). In accordance with this design frame, it then describes the process of preparing the data collection methods of the study (i.e. document interrogation, self-completion questionnaire and interview). Prior to explaining the data collection process, this chapter also discusses ethical dilemmas and ethical issues which emerged throughout the study.

The chapter then explains the data collection process of the study. Since the data collection process was conducted separately in Turkey (Study-1) and England (Study-2), it explains the process in both countries respectively. Following that, the chapter describes the data analysis process of the study, which involves both numeric data analysis (i.e. descriptive analysis) and textual data analysis (i.e. thematic framework analysis). This chapter ends by summarising the methodological underpinnings of the study.

3.1. Research approach

This section aims to clarify the research approach of the study. Heck (2006) states that 'making the conceptual and methodological underpinning explicit encourages the linking of theoretical propositions to research questions, methods of conducting the study, empirical findings, and the logic of conclusions' (p.377). In line with this, this section explains the rationale behind the study and philosophical assumptions on the research topic in order to present how theoretical propositions were linked to the research design, methods, data collection and data analysis processes of the study.

3.1.1. Rationale

As previously stated in 'Chapter 1: Introduction', the researcher was funded by the Turkish Ministry of National Education (MoNE) with a scholarship to conduct research in the field of vision impairment education in the UK. Although the researcher had some familiarities with educational contexts in Turkey and England (as previously indicated, she gained an undergraduate degree in teacher training in Turkey and a master's degree in England), she did not have any training to be a VI teacher either in Turkey or in England. In line with the aim of the funding/scholarship (see 'Chapter 1: Introduction'), the researcher intended to understand how learners with vision impairment have been provided with educational support by teachers who have had teacher training in the area of vision impairment education in Turkey and England. This led to a need to understand how VI teachers have been prepared for their distinctive roles/functions in both countries.

In line with this, the study aimed to investigate the distinctive role/function of VI teachers in Turkey and England as well as their training in the area of vision impairment education in both countries. This study also aimed to make some recommendations in order to help improve educational practices for learners with vision impairment in Turkey through comparing/contrasting the findings from these two countries.

3.1.2. Philosophical approaches

Williams and May (1996) state that although the aim of both social research and philosophy is to develop knowledge of the world, their concerns differ from each other. For example, while philosophy is concerned with understanding 'what kind of things exist in the world and what is our warrant to know them', social research is concerned with 'their knowable properties' (ibid. p.9). In line with this, they argue that the ontological and epistemological outcomes of philosophical approaches have a direct impact upon what could be said about 'social properties'. Therefore, it was assumed that clarifying philosophical approaches to the research topic would benefit what would be said about 'social properties' of the research phenomenon.

Historically, two approaches about the nature of the social world have long been accepted as major paradigms in social science, namely *positivism* and *interpretivism* (see, for example, William and May, 1996; Bryman, 2016; Thomas, 2017). According to *positivism*, it is assumed that the social world can be understood 'objectively'; therefore, social objects can be studied in the same ways as natural objects (Smith, 1998). In contrast, according to *interpretivism*, it is assumed that everyone constructs the social world differently; therefore, there is a not straightforwardly understandable or comprehensible aspect of the social world (Thomas, 2017). In parallel with such paradigms, deductive and inductive forms of logic have been widely acknowledged as the main logical forms for theory development in social science. While deductive approach is concerned with deducing a hypothesis (or hypotheses), inductive approach (which works in the opposite direction to deduction) is concerned with the researcher's inference of the implications of the study for the theory development (Bryman, 2016).

Nevertheless, a philosophical movement which rejects those certain traditional assumptions about the nature of inquiry and which has been labelled as *pragmatism*, started in the later part of the 19th century and has been commonly accepted as distinct from other traditional paradigms

(Maxcy, 2003; Plano Clark and Creswell, 2008). As a research paradigm, *pragmatism* can be described as a paradigm that may draw on ideas about 'what works' about the phenomena considering both objective and subjective knowledge (Creswell and Plano Clark 2007; 2011). In terms of theory development, Plano Clark and Creswell (2008) state that the pragmatic approach relies upon a type of abductive reasoning that moves back and forth between deduction and induction. Similarly, Feilzer (2010) argues that 'pragmatism as a research paradigm supports the use of […] a continuous cycle of abductive reasoning' (p.6).

In fact, this study was not mainly concerned with the features of VI teacher training programmes in Turkey and England in terms of 'what works' or 'does not work'. However, it predominantly concerned how teacher training programmes *should* prepare VI teachers in order for them to enable learners' full participation in education and life. Therefore, this study inevitably had some pragmatic elements regarding the mechanism of those programmes. Accordingly, it could be argued that the philosophical underpinning of this study was predominantly a pragmatist approach.

3.2. Research design

According to De Vaus (2001), 'the function of a research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible' (p.9). In line with the research aim, this study was designed considering the following initial research question:

- How do VI teacher training programmes prepare VI teachers (i.e. SETs and QTVIs) for their distinctive role/function in Turkey and England?

As previously noted, this study was underpinned by a predominantly pragmatist approach. Feilzer (2010) argues that a pragmatic paradigm poses some methodological concerns if the

phenomenon in question has different layers. Therefore, in order to 'measure' and 'observe' the different layers of the phenomenon, Feilzer (2010) suggests that a mixed methods approach can examine some aspects of the phenomenon by quantitative approaches and others by qualitative approaches. Indeed, it is widely accepted that the mixed methods approach can be appropriate for studies which are underpinned by a pragmatist paradigm (e.g. Denscombe, 2007; Creswell and Plano Clark, 2007). For example, Denscombe (2007) states that pragmatism is commonly regarded as a 'philosophical partner' of the mixed methods approach (p.116). This is because the mixed methods approach is not only a 'practical, problem-driven approach to research', but can also 'provide a fuller description and/or more complete explanation of the phenomenon being studied by providing more than one perspective on it' (ibid. pp.118-119).

In fact, the strengths of using the mixed methods approach have been widely highlighted by many authors, particularly in relation to its advantage in providing comprehensive and stronger inferences regarding the research phenomenon (see, for example, Tashakkori and Teddlie, 2003; Denscombe, 2007; Creswell and Plano Clark, 2007; Newby, 2014; Bryman, 2016). For instance, Creswell and Plano Clark (2007) argue that the mixed methods approach offsets the weakness of both qualitative and quantitative data through providing 'more comprehensive evidence than either quantitative or qualitative research alone' (p.9). Accordingly, it was assumed that in parallel with the philosophical underpinning of the study, the mixed methods approach might enable the researcher to provide 'comprehensive evidence' for the research phenomenon of the study.

Creswell and Plano Clark (2006; 2007) highlight the following three issues which need to be considered while designing mixed methods studies: (1) timing decision, (2) weighting decision, and (3) mixing decision. In relation to the decision on timing, Creswell and Plano Clark (2006) state that the decision is not only related to when the data will be collected, but also to when the data will be interpreted and analysed. As illustrated in Table 3.1, in line with the research

aims, each type of data set (i.e. textual and numeric data) was planned to be collected and analysed at approximately the same time.

In terms of the decision on the weighting of qualitative and quantitative approaches, Morse (1991) argues that a range of considerations may influence this, including the theoretical direction of the study (cited in: Creswell and Plano Clark, 2006). For example, she argues that a pragmatic worldview calls for either equal or unequal weighting, depending on the research question. Accordingly, in line with the philosophical paradigm of the study (i.e. a pragmatic approach) and the research questions, this study was assumed to be appropriate for equal weighting of textual and numeric data (see Table 3.1).

Creswell and Plano Clark (2006) mention the following three strategies with respect to the mixing decision: (1) merging the data set, (2) embedding the data set, and (3) connecting from data analysis to data collection. As seen in Table 3.1, this study was designed to merge the textual and numeric data sets. While merging the data set, as Creswell and Plano Clark (2006) suggested, it was planned to analyse the data sets (i.e. textual and numeric data) separately and then to merge them together during the discussion phase.

(1) Timing Decision	**Concurrent timing** (QUANT+QUAL)	**X**
	Sequential timing (QUANT or QUAL first)	
(2) Weighting Decision	**Equal weight** (QUANT+QUAL)	**X**
	Unequal weight (QUANT or QUAL emphasis)	
(3) Mixing Decision	**Merge the data** (during interpretation or during analysis)	**X**
	Embed the data (QUANT in QUAL or QUAL in QUANT design)	
	Connect the data (QUANT leads to QUAL or QUAL leads to QUANT)	

Table 3.1 Procedural considerations of the mixed methods approach of the study (adapted from Creswell and Plano Clark, 2006; 2007)

3.2.1. Research design frame

Thomas (2017) defines the 'design frame' as a superstructure for research that connects purposes, questions and methods of data collection. Heck (2006) states that the purpose of the research and the relevant previous literature can be useful in order to select an appropriate research design [frame]. Accordingly, in relation to the relevant literature and research aims, in order to investigate one VI teacher training programme in each country from a variety of perspectives, it was considered that a case study design frame would help obtain 'in-depth' and 'rich' understanding regarding the programmes (De Vaus, 2001; Yin, 2003; Thomas, 2017).

It is widely acknowledged that case studies are commonly preferred when 'how' and 'why' questions are being asked (Yin, 2003). In other words, case studies are accepted as appropriate for studies where process (how and/or why) is the major concern (Heck, 2006). Indeed, Yin (2014) states the case study enables the researcher to investigate the phenomenon in depth, particularly when the boundaries between phenomenon and context are not evident. This study intended to investigate *how* VI teacher training programmes prepare teachers for their distinctive roles in Turkey and England as well as *how* this training shapes their conceptualisations of their roles. Since the boundaries between the phenomenon and context were not evident, it was assumed that the case study design frame would allow an insight to be provided into *how* VI teacher training programmes conceptualise the distinctive role of VI teachers in both countries. In addition, it was assumed that the case study design frame would enable the identification of similarities/differences between these programmes through investigating *why* the perception/conceptualisation of the concept of the VI teacher in each country differed (or not) from each other.

Yin (2014) highlights the following two stages while designing the case study (i.e. 'the unit/s of analysis'): (1) defining the 'case' to be studied; and (2) bounding the 'case'. As stated in 'Chapter 2: Literature Review', one higher education institution in each country (i.e. Gazi

University and University of Birmingham) has a central role in delivering VI teacher training in Turkey and England. Therefore, these programmes at Gazi University and the University of Birmingham were selected and defined as 'cases' of the study. As Thomas (2016) states, 'because completeness is being emphasised, this does not mean that *everything* has to be covered [in case studies]' (p.111, original *italics*). Therefore, in line with the purposes of the study, the focus of the investigation of the programmes was bounded by the approaches of the programmes to the distinctive roles of VI teachers. This means that rather than focusing on the delivery approaches, designs or methods of the programmes, the focus of the investigation was on analysing the programmes in terms of their approaches to distinctive roles of VI teachers in each country (e.g. the content focus of the programme). In line with this, the initial research question of the study (see above) was developed as follows:

- How the distinctive role of the VI teacher is conceptualised in teacher training programmes in Turkey and England?

Thomas (2011; 2016) suggests that case studies must compromise two elements. These are (1) the *subject* (a practical, historical unity) or in other words 'case' and (2) the *object* (an analytical or theoretical frame). As previously stated, one programme in each country was selected as the *subject* of the study (i.e. 'cases'). In terms of the other element of the case study, Thomas (2011) states that the *object* is 'less straightforwardly identified' (p.514) and it may not need to be defined at the outset, but may emerge throughout the progress. In terms of the *object*, Heck (2006) states that case studies lend themselves to a variety of conceptual lenses. In this study, as the literature suggested, Bronfenbrenner's theoretical approaches towards human development were used as a conceptual and theoretical lens in order to help gain a holistic understanding of the concept of the VI teacher in each country (see 'Chapter 2: Literature Review'). In addition, it was considered that using Bronfenbrenner's theoretical framework would provide a consistent language and structure for the data analysis from the two countries.

Since the two programmes in each country were selected as 'cases', the type of the case study would be considered as a multiple case design frame. In relation to multiple case studies, De Vaus (2001) argues that each case should be treated as a single case in order to be able to establish a full account of it prior to cross-case comparisons. Similarly, relating to multiple case studies, Thomas (2016) states that 'each individual subject is less important in itself than the comparison each offers with the others' (p.172). Therefore, each case of this study (i.e. the VI teacher training programmes) was 'treated' as a single case prior to conducting the cross-case comparison.

As previously noted, the aim of the funder of the researcher was to gain insights to help improve educational practices for learners with vision impairment in Turkey through investigating educational practices provided for learners with vision impairment in the UK. Therefore, this study inevitably had some comparative components due to the nature of studying two countries in a single study. In fact, the initial purpose of comparative inquiry in this study was to learn from the foreign example to help improve the situation 'at home' (Phillips, 2006, p.284). However, as Thomas (2017) points out, a recognition of another country can offer new avenues for ideas and for development, providing 'a window on our unspoken or unquestioned cultural expectations' (p.185). Therefore, it was considered that the comparative inquiry could also provide an insight into cultural aspects regarding vision impairment education in Turkey and England.

In relation to using comparative inquiry, Phillips and Schweisfurth (2014) state that 'there can be no single approach to comparison that will be agreed upon or that will be appropriate even to the majority of circumstances' (p.120). However, a number of authors have highlighted a number of common procedural rules relating to comparative studies (see, for example, Bray and Thomas, 1995; Bryman, 2016; Thomas, 2017). For instance, Thomas (2017, p.184) argues that the following four points need to be considered in comparative studies: (1) the equivalence

of the comparison situations, (2) the equivalence of measuring instruments, (3) language, and (4) the integrity of 'realness' of the geographical unit being studied.

In terms of the 'equivalence of the comparison situations' in this study, although the VI teacher training programmes (i.e. 'cases') in Turkey and England differ from each other in terms of their delivery designs and types, it was assumed that these programmes have an equivalent role in preparing VI teachers in these countries. In addition, as previously noted, rather than focusing on the delivery methods of the programmes, the focus of the study was on the approach of the programmes to the distinctive roles of VI teachers. Therefore, the two programmes were assumed as 'equivalent' for the comparative inquiry. However, in terms of the equivalence of situations, another concern might be differences between the nature of the roles of VI teachers in Turkey and England. For example, VI teachers (i.e. SETs and QTVIs) may have different roles/functions in Turkey and England because of different educational and legislative contexts in these countries (see 'Chapter 1: Introduction'). Nevertheless, due to the distinctive nature of the role of VI teachers, it was considered that VI teachers in these countries (i.e. SETs and QTVIs) have a central role in providing educational support for learners with vision impairment. For this reason, 'the equivalence of the comparison situations' seemed to be appropriate for the comparative inquiry in the study.

In terms of other points highlighted by Thomas (2017), the same measuring instruments (i.e. questionnaires and interviews) were prepared and designed both in Turkish and in English. It was also assumed that conducting a study in Turkey and England would be more appropriate than conducting a study in Turkey and the UK as a whole because of the integrity of 'realness' of the geographical unit being studied (Thomas, 2017). Accordingly, it could be argued that the data-gathering methods (which have been explained in the next section) were prepared in line with the procedural rules of 'comparative case study' (CCS) design frame.

In relation to CCS design frames, Barlett and Vavrus (2017) state that the foremost point to be considered is 'how much we might achieve through comparison' (p.6). Therefore, they argue that the following two logics of comparisons need to be considered relating to CCS design frames: (1) to compare/contrast the identified specific units of analysis, and (2) to *trace across* individuals, groups, sites or time periods (Barlett and Vavrus, 2017, p.8, original *italics*). In line with this, since the focus of the investigation of the programmes was bounded by the approaches of the two programmes, it was considered that the programmes' approaches to the distinctive role of VI teachers need to be compared/contrasted (as the identified specific units of analysis) through *tracing across* the views of the programme stakeholders in both countries. Barlett and Vavrus (2017) argue that 'the CCS approach […] encourages the use of multiple methods' (p.121). Therefore, as the next section explains, in accordance with the CCS approach, interviews and questionnaires were prepared as the main data collection tools of the study.

3.2.2. Research methods

As previously noted, this study had a mixed methods approach, which was predominantly underpinned by a pragmatist paradigm. The research methods of the study, therefore, were considered to be associated with the paradigm of the study (Creswell, 1994). Concerning the mixed methods approach, Creswell and Plano Clark (2011) state that since both qualitative and quantitative research has limitations, the 'limitations of one method can be offset by the strengths of other method' (p.8). In line with this, a quantitative data collection tool (i.e. questionnaire) was selected to enable a more general understanding to be provided regarding the VI teacher training programmes in the two countries (e.g. how well do the programmes prepare VI teachers for their distinctive roles?). A qualitative data collection tool (i.e. interview) was selected to gain a detailed understanding of the concept of the VI teacher in both countries (e.g. how is the distinctive role of the VI teacher conceptualised in the programmes?).

In addition, prior to data collection, a number of documents which were relevant to the concern of the topic were examined in order to prepare data-gathering tools of the study. This was mainly to find out similar (or common) aspects of the distinctive roles of VI teachers in different country contexts (including Turkey and England). Therefore, as the following section presents, the data-gathering tools of the study were defined as 'document interrogation' (Thomas, 2017), questionnaire and interview.

3.2.2.1. Document interrogation

Prior to preparing data collection tools, in order to identify common features regarding the distinctive role of VI teacher and their training, it was considered that investigating relevant documents to the research topic would be useful for designing questionnaires and interviews. Bryman (2016) defines 'documents' as research sources which are 'simply *out there* waiting to be assembled and analysed' (p.546, original *italics*). He describes 'documents' as research materials according to the four following criteria: (1) documents should be read (i.e. they cannot be visual materials, such as photographs), (2) documents should not be produced specifically for the purpose of the research, (3) documents should be preserved; and (4) documents should be relevant to the concern of the research.

The main purpose of document interrogation in this study was to identify common features of the distinctive role of VI teachers in different country settings (including Turkey and England) that might be the key concern of their training. Therefore, it was assumed that different national standards/competencies for VI teachers would be important sources to find out common aspects of the distinctive roles of VI teachers. In fact, the literature review illustrated a number of common features regarding the nature of their distinctive role (see 'Chapter 2: Literature Review'). However, it was considered that investigating different national competencies for VI teachers in an international context would be beneficial in designing questionnaires and

interviews. Additionally, it was considered investigating materials regarding the two programmes (i.e. Gazi University and the University of Birmingham) as research documents (e.g. online learning materials, contents of modules) would provide benefit for preparing data collection tools of the study.

Robson (1993) states 'document analysis is commonly referred to as content analysis' (p.272) and suggests a systematic approach to the content analysis process. However, because the document interrogation was conducted to design the data-gathering tools of the study, content analysis procedures recommended by Robson (1993) did not need to be fully adopted. Nevertheless, a kind of systematic approach to the content analysis process was utilised during this stage. For instance, as seen in Table 3.2, a number of inclusion criteria were used to select documents.

	Inclusion Criteria
Document type	• National standards/competencies for VI teachers • Materials that provide information about VI teacher training programmes in Turkey and England (i.e. Gazi University and the University of Birmingham)
Time	• The most recent documents by 2017
Language	• English or Turkish

Table 3.2 Inclusion criteria for document interrogation

As illustrated in Table 3.3, after determining inclusion criteria to select documents, national standards and/or competencies for VI teachers in several countries, including Australia, Canada, England, Scotland, Turkey and the US, as well as the websites of the VI teacher training programmes at Gazi University and University of Birmingham, were included in the document interrogation process between September 2016 and February 2017. As Bryman (2016) states, 'websites […] are potential sources of data in their own right and can be regarded as potential material for both quantitative and qualitative content analysis' (p.556). In fact, in this study the

websites of the programmes were considered as potential materials solely to be able to investigate programme structures and contents. The researcher accessed online materials of the VI teacher training programme in England through an online system used for delivering the programme (known as Canvas) with the permission of the programme leader in November 2016.

Country	**National standards/competencies for VI teachers**	**VI teacher training programmes**
Australia	• Professional standards for specialist teachers (vision impairment) (SPEVI / South Pacific Educators in Vision Impairment, 2015)	---
Canada	• Canadian national standards for the education of children and youth who are blind or visually impaired, including those with additional disabilities (CNS, 2003)	---
England	• Specification for mandatory qualifications for specialist teachers of children and young people with vision impairments (NCTL, 2016)	• Website of the VI teacher training programme (University of Birmingham) • Online materials about the programme (e.g. online learning activities, learning outcomes)
Scotland	• Guidance on appropriate qualifications for teachers of children and young persons who are hearing impaired, visually impaired, or both hearing and visually impaired (Scottish Executive, 2007)	---
Turkey	• Teachers' competencies: Teachers' generic and subject matter competencies (MoNE / Ministry of National Education, 2008)	• Website of the VI teacher training programme (Gazi University) • Online materials about the programme (e.g. timetables, contents of modules)
United States	• Council for exceptional children – What every special educator must know: ethics, standards and guidelines (CEC, 2009)	---

Table 3.3 Document types included in the document interrogation process

Throughout document interrogation process, the purpose was to find out common features of the distinctive role of VI teachers that might be the central concern of their training. Accordingly, despite differences regarding the concept of the VI teacher in different countries,

the document interrogation illustrated that there were a number of common features regarding the distinctive role of VI teachers. These can be summarised as follows:

- The common aspects of standards/competencies regarding VI teachers were aligned with the issues raised in the literature review (see 'Chapter 2: Literature Review'). For example, the distinctive role of VI teachers was widely acknowledged as ensuring participation of learners with vision impairment in education through providing curriculum access.

- Competencies and/or standards were mostly focused upon 'disability-specific' knowledge, understanding and competencies/skills. Therefore, competencies and/or standards mainly referred to the areas of the additional/expanded core curriculum.

- Collaborating with families and other professionals was highlighted as one of the central features of the distinctive role of VI teachers.

Consequently, it seemed that the findings of the document interrogation did not significantly differ from the findings of the literature review regarding the common features of the distinctive roles of VI teachers. Nevertheless, this process assisted in illustrating common features of the distinctive role of VI teachers regardless of different educational and policy contexts. As the following sections explain, the data collection tools of the study (i.e. questionnaires and interviews) were designed considering those common features of the role of VI teachers as well as similar aspects of the VI teacher training programmes in Turkey and England.

3.2.2.2. Questionnaires

In relation to designing questionnaires, Robson (1993) argues that questionnaire questions should be constructed in order to assist in fulfilling research aims and to answer specific research questions of the study. The main aim of designing questionnaires in this study was to investigate how well the programmes prepare VI teachers (i.e. SETs and QTVIs) for their roles

from the points of the views of programme stakeholders (i.e. VI teachers and trainees) in Turkey and England. To achieve this, in accordance with the CCS approach, the same questions (for VI teachers and trainees) were constructed in Turkish and English. The questions were firstly prepared in English and then translated into Turkish (see the English version of the questionnaire in Appendix-3a). To check the coherence of the questionnaire, feedback from a Turkish native speaker, whose second language is English, was taken regarding the equivalence of the questionnaire. The questionnaire was designed in both printed and online formats. The online format of the questionnaire was prepared using an online survey tool, namely, Bristol Online Survey (BOS).

The questionnaire was designed as consisting of the following three sections: (1) personal information (e.g. age, gender), (2) VI teacher training (i.e. pre-service training in Turkey and MQ training in England) and (3) supporting strategies for facilitating curriculum access. The questions in relation to 'factual knowledge' of respondents (Newby, 2010), such as gender, age group and years of work experience, were asked as closed question types in the first section (see Appendix-3a).

In the second section of the questionnaire, the questions regarding VI teacher training were prepared through the use of 4-point rating scales in order to enable the researcher to 'fuse measurement with opinion, quantity and quality' (Cohen, Manion and Morrison, 2007, p.327). This section was prepared in order to elicit the opinions of programme stakeholders (i.e. VI teachers and trainees) on the extent to which they increased their knowledge, understanding and competencies/skills throughout their VI teacher training. In line with the findings of the literature review and the document interrogation, this section was designed relating to 'common' areas concerning VI teacher training in Turkey and England, including:

- Vision and vision impairments

- Additional/expanded core curriculum areas
- Teaching and learning activities
- Partnership working (see Appendix-3a).

The third section of the questionnaire was prepared to find out the opinions of participants regarding supporting strategies for facilitating curriculum access. For this purpose, the participants were asked to give their level of priorities for a number of strategies for facilitating curriculum access (i.e. 'access to learning' and 'learning to access') using rank order questions (i.e. minor priority < medium priority < major priority < critical priority) (see Appendix-3a). However, the data which was gathered through this section was not presented in this thesis. This was partly because space in the thesis did not allow exploration of this data, and on reflection the data generated was more related to a specific aspect of the distinctive role of VI teachers (i.e. facilitating curriculum access) rather than their training (the emphasis of the thesis).

As a common weakness of questionnaires, Cohen, Manion and Morrison (2007) state that 'we have no way of knowing if the respondent might have wished to add any other comments about the issue under investigation' (p.327). Therefore, as Feilzer (2010) states, interviews can be designed to follow the survey research sequentially to explore in more detail the survey findings in research using the mixed methods approach. In fact, as the next section explains, the purpose of designing interviews for VI teachers was not only to investigate their VI teacher training in more detail, but also to gain an insight into VI teachers' conceptualisations of their roles. In parallel with the CCS approach, interviews were also designed to investigate the views of tutors in both countries regarding the VI teacher training programmes in which they were involved.

3.2.2.3. Interviews

Similar to designing the questionnaire, semi-structured interview schedules were prepared both in English and in Turkish (see the English version of the semi-structured interview schedule in Appendix-3b). The semi-structured interview schedule was designed in order to find out the views of VI teachers regarding their distinctive roles as well as their VI teacher training. The schedule, therefore, was prepared to gather the views of VI teachers regarding both their roles within educational setting(s) in which they worked and their VI teacher training (i.e. pre-service training or MQ training).

In parallel with the theoretical framework of the study, the schedule was designed in relation to the common distinctive roles of VI teachers within and between different layers of the *ecological* system of the learner. Accordingly, the questions were constructed in order to identify conceptualisations of distinctive roles of VI teachers *with* learners within the immediate setting(s) and with other people *around* the learner within the *distal* settings. Considering the common aspects of competency/skill areas of VI teachers in Turkey and England (see 'Chapter 2: Literature Review'), as seen in Table 3.4, the semi-structured interview schedule was designed, consisting of the following five topics: (1) opening/introduction, (2) teaching and learning activities, (3) partnership working, (4) raising awareness and curriculum policy development, and (5) closure.

It is widely acknowledged that using probes and prompts is useful to obtain 'rich' information from interviews (e.g. Robson, 1993; Cohen, Manion and Morrison, 2007; Thomas, 2017). For instance, Cohen, Manion and Morrison (2007) state that prompts and probes enable the interviewer to get 'richness, depth of response, comprehensiveness and honesty that are some of the hallmarks of successful interviewing' (p.361). As seen in Table 3.4, the schedule was designed to enable the interviewee to give a 'range or set of possible answers' that the researcher expected in relation to the research aims (Robson, 1993).

Headings	**Content**
1. Opening/Introduction	• Background, previous experiences
2. Teaching and learning activities	• Professional role (*with* the learner – *microsystems*) – Prompts: Inclusive practice and differentiation; independent learning skills • VI teacher training

3. Partnership working	• Professional role (with families/other professionals – *mesosystems*)
	  – Prompts: Advisory role in making decision process; transition process
	• VI teacher training
	  – Prompts: Level of self-confidence in terms of advisory roles

4. Raising awareness and curriculum policy development	• Professional role (*exosystems-macrosystems*) – Prompts: Developing and implementing curriculum policies and practices • VI teacher training
5. Closure	• Additional comments, recommendations

Table 3.4 Design of semi-structured interview schedule

In order to gather the views of tutors regarding VI teacher training programmes, an unstructured interview schedule was prepared in English and Turkish (see the English version in Appendix-3c). In relation to unstructured types of interview, Bryman (2016) states that the interviewer generally has a list of topics/issues that are to be covered. In this study, the topics/issues for unstructured interviews were determined in line with the semi-structured interview schedule as below:

- Teaching and learning activities
- Partnership working
- Raising awareness and curriculum policy development (see Appendix-3c)

Consequently, by considering the theoretical framework of the study, both semi-structured interviews and unstructured interviews were designed in connection with the common features

of the role of VI teachers, which emerged from the literature review and the document interrogation.

3.2.3. Ethical considerations

In respect of general ethical responsibilities in social science research, Robson (2011) argues that values and value judgements are connected with morals and moral judgements. Therefore, he states that considering general ethical responsibilities, a research topic may be chosen 'because it is viewed as more worthwhile than another' (p.219). In relation to this, it could be argued that this study was built on the consideration of ethical responsibilities since the topic was viewed as a worthwhile study in the area of vision impairment education in Turkey and England. This was because there were relatively few studies in relation to the role and training of VI teachers in both countries. Therefore, it was assumed that this study would provide 'recommendations for action or practice' (Robson, 2011, p.219) in relation to the preparation of VI teachers in Turkey (primarily) and England.

However, as Cohen, Manion and Morrison (2007) state, 'each piece of [social science] research raises ethical issues and dilemmas' (p.111), which might result from a range of factors, including from the nature and context of the research project, the methods of data collection or the nature of the participants. In fact, the ethical issues in this study stemmed from a variety of factors. First, ethical issues and dilemmas emerged in relation to ensuring the anonymity of participants who participated in interviews. In order to maintain the privacy of VI teachers who participated in interviews in both countries, they were anonymised using letters and numbers in data analysis process, such as SET-1 and QTVI-1. However, since one higher education institution/university has a central role in delivering VI teacher training in each country, ensuring the anonymity of these universities would not be possible even if pseudonyms of these universities were used. Therefore, there was a possibility of identifying tutors involved in the

programmes at these universities in this study (indeed, this was likely if the reader was familiar with the field and wished to find out). In line with this ethical issue, Oliver (2010) states that:

> 'There are no absolute guarantees of anonymity, particularly in the case of people who hold named posts, but the important issue is that researchers recognize the importance of privacy for respondents and then do their best to ensure that privacy' (p.80).

Accordingly, although it was not possible to protect entirely the identities of tutors who participated in interviews, letters and numbers were used to describe the tutors throughout the data analysis process in order to ensure their anonymity as much as possible (e.g. Tutor-1T, Tutor-1E).

Another concern regarding ethical issues in this study was recording participants' voices during interviews. As Oliver (2010) emphasised, it was considered that a use of a voice recorder might be intimidating and worrying for some participants. Therefore, prior to interviews, all participants were informed about the aim of recording their voices and confidentiality of their voice records in the participant information sheet (see the English version of the participation information sheet in Appendix-2a). As Bryman (2016) states, the advantage of using an information sheet is not only to give participants the opportunity to be fully informed about the research, but also the implications of their participation at the outset. Therefore, participant information sheets were also prepared to provide participants with potential implications of their participation at the end of the study (see Appendix-2a). Further, participants were also verbally informed prior to conducting interviews regarding the interview process (e.g. how their voices would be recorded, how the voice recordings would be kept). After participants were informed, their consent was taken both verbally and with the consent form (see the English version of the consent form in Appendix-2b).

Compared to gathering data through interviews, fewer ethical issues in relation to collecting data through questionnaires seemed to emerge. This was because protecting the identities of respondents seemed to be easier than protecting the identities of interview participants.

However, similar ethical procedures were followed for respondents through participant information sheets and consent forms. For example, the first page of the online questionnaire was designed to enable respondents' consents to be gathered after they were provided with information about the study. Similarly, brief information on the study was provided at the beginning of the printed format of the questionnaire (see Appendix-3a).

Considering the above-mentioned ethical issues, ethical approvals from a variety of ethical boards were gained in Turkey and England, including the Ministry of National Education in Turkey (see Appendix-1a), the University of Birmingham (see Appendix-1b) and Gazi University (see Appendix-1c). However, as Bryman (2016) states, 'the boundaries between ethical and unethical practices are not clear-cut' (p.145). Therefore, it could be argued that gaining official ethical approvals did not mean that the research process would be completely appropriate in terms of ethical principles. Nevertheless, in relation to ethical procedures in social science research, as Oliver (2010) argues, 'the whole concern should be with thinking about the welfare [of people] […] and trying to treat them with as much care and respect as possible' (p.173). Consequently, the key ethical concern of the study was to treat people in the two countries (both those who participated in the study and those who did not) with care and respect as much as possible from the early stages to the end of the study.

3.3. Data Collection Process

The data collection process of the study was separately conducted in Turkey (Study-1) and in England (Study-2). Following the official ethical permissions, the data collection process started in May 2017 and ended in March 2018. This section explains the data collection process of the study in both countries respectively.

3.3.1. Data collection process in Turkey (Study-1)

The aim of data collection in Study-1 was to investigate the views/opinions of stakeholders involved in the VI teacher training programme at Gazi University [in Turkish: Görme Engelliler Eğitimi Anabilim Dalı], including VI teachers, trainees and tutors. Throughout the data collection process in Turkey, a different procedure was followed for each participant group below:

- Special Education Teachers (SETs)
- SET candidates / trainees
- Tutors

Special Education Teachers

Questionnaire – As previously stated, questionnaires were designed to gather the opinions of SETs regarding their VI teacher training. Prior to distributing the questionnaire, it was piloted with an alumna of the VI teacher training programme at Gazi University. After gaining her feedback on the questionnaire, the online questionnaire link started to be distributed via email. Throughout the distribution process of the online questionnaire, a 'non-probability sampling' (Robson, 1993) strategy was followed. However, a series of systematic and exhaustive procedures were followed in order to distribute the questionnaire to a wide range of professionals working in all available settings. For instance, at the first stage, head teachers of special schools for pupils with vision impairment and Guidance and Research Centres (GRCs) were contacted via phone. Following this, an email was sent to head teachers, attaching the official permission from the MoNE (see Appendix-1a), in order to request them to share the online link of the questionnaire with SETs working in their schools/centres.

At this stage, the researcher only had access to SETs working in special education schools and GRCs in order to distribute the online questionnaire. The researcher contacted (via phone and

email) 15 special education schools for pupils with vision impairment and 34 Guidance and Research Centres (GRCs) in two major cities in Turkey (as noted in 'Chapter 1: Introduction', there were 17 special education schools for pupils with vision impairment and 233 GRCs in the 2016-2017 academic year). Additionally, in order to gain access to SETs working in different educational settings and to obtain more responses for the questionnaire, the online questionnaire link was also distributed using social media tools, including Twitter and Facebook. Prior to responding to the questionnaire, all respondents confirmed that they graduated from the VI teacher training programme at Gazi University. In total, 61 Special Education Teachers (SETs) responded to the questionnaire but seven responses of those were excluded from the total number because it seemed that these respondents did not carefully read the questionnaire. Accordingly, as seen in Table 3.5, in total 54 participants' responses were involved in the analysis process. SETs who responded to the questionnaire were 18 males (33%) and 36 females (67%). Most SET respondents (80%) were in the age groups of 20-29 (*n*=21) and 30-39 (*n*=22). Most of the respondents (69%) reported that they worked in special education schools for pupils with vision impairment (*n*=37).

Variable	n	%
Gender		
Male	18	33
Female	36	66
Work experience		
Less than 1 year	2	4
1-5	18	33
6-10	10	19
11-15	14	26
15+	10	19
Work settings*		
Special school for VI learners	37	69
Mainstream school	6	11
Special education centre	2	4
Vocational training centre	3	6
Guidance and research centre	9	17
Special education and rehabilitation centre	8	15
Other	2	4

Table 3.5 Selected demographic characteristics of SET respondents (*not mutually exclusive)

Interview – Similar to the aim of distributing questionnaires, the aim was to conduct interviews with SETs working in a variety of educational settings. Therefore, the researcher contacted head teachers in different educational settings in which SETs work, including two special education schools for pupils with vision impairment, one vocational training centre linked to one of these special education schools, two GRCs, one special education and rehabilitation centre (SERC) and two mainstream schools in Turkey. Prior to conducting interviews with participants in these settings, they were also asked to respond to the printed version of the questionnaire. In total, 17 semi-structured interviews were carried out in Turkey. Since the researcher aimed to recruit VI teachers working in a variety of educational settings, this participation selection strategy could be considered as a 'purposive' strategy (Robson, 2011).

As seen in Table 3.6, participants working in different educational settings and working with different age groups of learners with vision impairment were recruited to the study. Only one of the participants was not working with a learner with vision impairment at the time that the interview was conducted. Prior to conducting interviews, all participants confirmed that they

graduated from the VI teacher training programme at Gazi University. Interviews with SETs were conducted face-to-face in Turkey, lasting on average 30-35 minutes. Only one interview was conducted via phone. The researcher took a voice recording of each interview. In accordance with ethical principles, prior to conducting interviews, SETs who agreed to take part in the study were given the participant information sheet and consent form in Turkish (the English version can be seen in Appendix-2). All participants' consents were taken by gathering their signatures. The consent of the participant who took part in the study via phone was taken verbally.

Robson (1993) defines semi-structured interviews as an interview type where the interviewer prepares a set of questions in advance but is free to modify the order of these questions according to his/her perception of what seems most appropriate in the context of the interview. Throughout interviews, some parts of the semi-structured interview schedule were modified depending particularly on the work settings of participants. For instance, since roles/functions of SETs working in GRCs are different from other SETs (see 'Chapter 1: Introduction' for more details), some modifications were made in the interview schedule for participants working in GRCs. For example, while participants working in schools were not asked about their roles in carrying out functional vision assessments, the participants working in GRCs were asked about their roles in relation to functional vision assessments.

Pseudonym	Work experience (years)	Work setting	Age group of VI learners currently working with
SET-1	6-10	Guidance and Research Centre	All age groups
SET-2	11-15	Special education school class (for VI learners)	7-10
SET-3	6-10	Special education school class (for MDVI learners)	11-13
SET-4	1-5	Special education school class (for MDVI learners)	7-10
SET-5	15+	Vocational Training Centre	14-16
SET-6	15+	Vocational Training Centre	11-13
SET-7	15+	Special education school class (for VI learners)	7-10
SET-8	1-5	Special education school class (for MDVI learners)	7-10
SET-9	6-10	Special education school class (for VI learners)	7-10
SET-10	1-5	Mainstream school	7-10
SET-11	6-10	Guidance and Research Centre	All age groups
SET-12	6-10	Guidance and Research Centre	All age groups
SET-13	11-15	Mainstream school	Not currently working w/VI learner
SET-14	1-5	Special education school class (for MDVI learners)	7-10
SET-15	15+	Special education school class (for MDVI learners)	7-10
SET-16	15+	Special education school class (for VI learners)	7-10
SET-17	1-5	Special Education and Rehabilitation Centre	All age groups

Table 3.6 Demographic characteristics of SET participants

Trainees / SET candidates

Prior to distributing questionnaires, the researcher contacted the head of the VI teacher training programme at Gazi University via email. Following her permission, the researcher distributed questionnaires (in printed format) to trainees who were studying in Year-3 and Year-4 at the programme in the 2016-2017 academic year. As seen in Table 3.7, participants were selected as year-3 and year-4 students, using a 'purposive sampling' strategy (Robson, 1993), which is

a type of 'non-probability sampling strategy'. Robson and McCartan (2016) state that 'the principle of selection in purposive sampling is the researcher's judgement as to typicality or interest' (p.281). Considering the content of the programme, it was considered that year-3 and year-4 trainees had more experience with the programme rather than year-1 and year-2 trainees. As seen in Table 3.7, in total 82 trainees (i.e. SET candidates) responded to the questionnaire. Over half of them (54%) were in the third year of their training (*n*=44) and the rest of them (46%) were in the fourth of year of their training (*n*=38).

Variable	**n**	**%**
Gender		
Male	26	32
Female	55	67
Missing	1	1
Year of study		
Year-3	44	54
Year-4	38	46

Table 3.7 Demographic characteristics of SET trainee respondents

Tutors (Gazi University)

As previously noted, the unstructured interview schedule was prepared for tutors involved in the VI teacher training programme at Gazi University (see the English version in Appendix-3c). Since 'the population of interest is very small and seen as expert informants' (Gorard, 2013; p.84), a 'non-probability selection strategy' was utilised for recruiting tutors in the study. All tutors who were responsible for delivering modules in this programme were recruited in the study. In total, unstructured interviews were conducted with six tutors, including one associate professor, three assistant professors and two lecturers, who were actively involved in the programme in the 2016-2017 academic year. The researcher contacted each tutor in order to arrange an appropriate time for interviews. After arranging a convenient time, each interview was conducted face-to-face at Gazi University in 2017. Prior to conducting interviews, tutors

were given the participant information sheet and consent form in Turkish (see the English version in Appendix-2a). The interviews with tutors lasted on average 40-45 minutes and a voice recording of each interview was taken.

3.3.2. Data collection process in England (Study-2)

Similar to the data collection process in Turkey, throughout the data collection process in England a different procedure was followed for each participant group below:

- Qualified Teachers of Children and Young People with Vision Impairment (QTVIs)
- QTVI candidates / trainees
- Tutors

Qualified Teachers of Children and Young People with Vision Impairment

Questionnaire – A procedure very similar to the one in Turkey was followed in England in distributing the questionnaire to QTVIs. Similar to the participation selection strategy in Turkey, a 'non-probability selection strategy' was followed in England in order to recruit VI teachers (i.e. QTVIs). The online questionnaire link was distributed (via email) to all schools and colleges in England in which learners with vision impairment might attend (see RNIB, 2016b for the list of schools and colleges). The printed version of the questionnaire was distributed to QTVIs, who participated in interviews. The printed version of the questionnaire was also distributed to QTVIs who attended a conference that was held by the Vision Impairment Education Workforce (VIEW), which is a professional association of the vision impairment workforce in the UK, in 2018. In order to obtain more responses, the link was also shared using online social media tools, including Twitter and Facebook. In total, 48 QTVIs responded to the questionnaire (see Table 3.8). As seen in Table 3.8, most of the respondents

(46% and 50%) reported that they worked in mainstream schools at pre-school/primary level (*n*=22) or secondary level (*n*=24).

Variable	n	%
Gender		
Male	8	17
Female	40	83
Work experience		
Less than 1year	3	6
1-5	11	23
6-10	12	25
11-15	6	13
15+	16	33
Work settings*		
Mainstream school (pre-school and/or primary)	22	46
Mainstream school (secondary)	24	50
Mainstream school with a VI resource base (pre-school and/or primary)	4	8
MS with a VI resource base (secondary level)	4	8
Special education school designated for VI learners	18	38
Special education school not designated for VI learners	19	40
Other	7	15

Table 3.8 Selected demographic characteristics of QTVI respondents (*not mutually exclusive)

Interview – Prior to collecting data, the questionnaire and interview schedule were piloted with a QTVI who had completed the VI teacher training programme at the University of Birmingham. Bryman (2016) states that 'piloting an interview schedule can provide interviewers with some experience of using it and can infuse them with a greater sense of confidence' (p.260). This piloting stage provided the researcher with experience; but more importantly, since English is not the researcher's native language, the pilot interview provided the researcher with confidence prior to conducting interviews in English. QTVIs working in a variety of settings in England, including mainstream schools and specialist schools designated for pupils with vision impairment, were recruited in interviews. In addition, QTVIs who have peripatetic roles in different educational settings linked to a number of visiting teacher services in England, were recruited in the study. Thus, as seen in Table 3.9, in total 13 interviews were

conducted with QTVIs working with different age groups of learners with vision impairment in a variety of settings in England. The participant selection strategy could be considered as a 'purposive' strategy (Robson, 2011) since the researcher aimed to recruit VI teachers working in a variety of educational settings, including schools and visiting teacher services in England.

Interviews with QTVIs were conducted face-to-face in England, lasting on average 30-35 minutes. A voice recording of each interview was taken. In accordance with ethical procedures, prior to conducting interviews, QTVIs who agreed to take part in the study were given the participant information sheet and consent form. All participants were requested to give their consent by their signature. Only one interview was conducted via FaceTime. This participant was requested to give their consent verbally. Throughout the interview process, some parts of the semi-structured interview schedule were modified depending particularly on the role of QTVIs. For instance, participants who had peripatetic roles were prompted to explain their advisory role in making decisions on the transition process in the early years of the child.

Pseudonym	Work experience as a QTVI (years)	Work setting	Age group of VI learners currently working with
QTVI-1	6-10	Specialist school for VI learners	5-16
QTVI-2	6-10	Specialist school for VI learners	11-16
QTVI-3	11-15	Specialist school for VI learners	11-16
QTVI-4	Less than 1	Specialist school for VI learners	11-16
QTVI-5	1-5	Specialist school for VI learners	11-16
QTVI-6	1-5	Specialist school for VI learners	11-16
QTVI-7	1-5	Visiting Teacher Service	0-25
QTVI-8	15+	Visiting Teacher Service	0-25
QTVI-9	11-15	Visiting Teacher Service	0-25
QTVI-10	11-15	Mainstream school	Not currently working w/VI learner
QTVI-11	11-15	Visiting Teacher Service	Not currently working w/VI learner
QTVI-12	15+	Mainstream school w/ VI resource base	5-11
QTVI-13	Less than 1	Visiting Teacher Service	0-25

Table 3.9 Demographic characteristics of QTVI participants

Trainees / QTVI candidates

In order to distribute the questionnaire to trainees, the researcher contacted the leader of the VI teacher training programme at the University of Birmingham. Following his permission, the programme administrator sent the online link of the questionnaire to year-2 trainees. Participants were selected as year-2 trainees, using a 'purposive sampling' strategy, which is a type of 'non-probability sampling strategy' (Robson, 1993). Considering the content of the programme, it was considered that year-2 trainees had more experience with the programme rather than year-1 trainees. As seen in Table 3.10, in total, 12 trainees (year-2) responded to the questionnaire.

Variable	n	%
Gender		
Male	3	25
Female	9	75
Previous experience as a teacher		
3-5 years	4	33
6-10 years	1	8
11-15 years	3	25
15+	4	33

Table 3.10 Demographic characteristics of QTVI trainee respondents

Tutors (University of Birmingham)

Similar to the participation selection strategy in Turkey, a 'non-probability selection strategy' was followed in England in order to recruit tutors since 'the population of interest is very small and seen as expert informants' (Gorard, 2013, p.84). Prior to conducting interviews with tutors, the unstructured interview schedule was piloted with a tutor involved in the VI teacher training programme at the University of Birmingham. Including this participant, unstructured interviews were conducted with four tutors. A similar procedure was followed at this stage and a voice recording of each interview was taken. In accordance with ethical procedures, tutors were given the participant information sheets as well as consent forms and they were requested to give their consent with their signatures.

3.4. Data analysis

Robson (1993) states that data (including audio records, responses to questionnaires and reports of documents) can come in all sorts of shapes and sizes which can be turned into the following two categories: (1) words or (2) numbers. In this study, data analysis included analysing both words and numbers, which were gathered through questionnaires and interviews. Although the data set in each country was separately analysed, the same procedure was followed throughout the data analysis process. This section, therefore, explains how numeric and textual data was

analysed in line with the aims of the study. It then discusses issues relating to the fidelity of the data analysis.

3.4.1. Numeric data analysis

Numeric data was gathered through self-completion questionnaires, which were completed by VI teachers and trainees in both Turkey and England. The purpose of the questionnaire was to find out how well VI teacher training programmes prepare VI teachers for their roles from the points of the view of VI teachers and trainees in Turkey and England. In particular, the respondents were asked to rate how they felt in relation to the following four training areas of the programmes:

- Vision and vision impairments (x questionnaire items)
- Additional/expanded core curriculum areas (y questionnaire items)
- Teaching and learning activities (z questionnaire items)
- Partnership working (a questionnaire items)

As previously noted in this chapter, the questionnaires were prepared using the Bristol Online Survey (BOS) tool. However, the questionnaires were also distributed by-hand by the researcher in the setting in which the interviews were conducted (i.e. paper-based formats). This data was descriptively analysed using a statistical software for numeric data analysis, which is widely used in social science research (SPSS version 24). The main descriptive statistical techniques used for the analyses included frequency tables, measures of central tendency (means) and dispersion (standard deviation). The numeric analysis was carried out in four stages, as explained in Table 3.11.

Stages of the analysis	Explanation of the process	Reported
Stage 1: Data preparation, tidying and coding	• Prepare the data in an SPSS file format • Check for any inconsistencies • Combine items into variables	Chapter 3
Stage 2: Analysis of each data set	• Analyse each data set for each of the four groups separately (i.e. SETs; SET trainees; QTVIs; QTVI trainees) • Analyse each data set through using descriptive statistics	Chapter 4 & Chapter 5
Stage 3: Analysis of the combined data set	• Combine the data for a given training area • Analyse the combined data set through using *paired two-group t-test* • Compare mean responses in training areas	Chapter 4 & Chapter 5
Stage 4: Data interpretation across two countries	• Combine the data for a given country • Analyse the combined data set through using *unpaired two-group t-test* • Compare mean responses in two countries	Chapter 6

Table 3.11 Stages of the numeric data analysis

Stage 1: Data preparation, tidying and coding

As seen in Table 3.11, the data was prepared in an SPSS file format (either exported from the BOS system, or transcribed from the paper copies). Prior to coding, the data was checked for any inconsistencies. De Vaus (2002) states that the coding process is helpful in statistical analysis to make the data more manageable. However, he mentions two central problems of coding, which are (1) 'deciding on coding schemes', and (2) 'minimising coding errors' (p.1). To overcome potential problems of coding, as De Vaus (2002) suggested, the data was 'coded for more rather than less detail' (p.8). In relation to sections on the questionnaire, items were combined into the following four training area variables: (1) vision and vision impairments, (2) additional/expanded core curriculum areas, (3) teaching and learning activities, and (4) partnership working. To minimise potential coding errors, the researcher worked together with the primary supervisor of the research throughout the coding process.

Stage 2: Analysis of each data set

At this stage, the analyses involved looking at the following four respondent groups separately: (1) SETs, (2) SET trainees, (3) QTVIs and (4) QTVI trainees. Each data set for each of these groups was separately analysed, providing a descriptive overview of their groups' responses. The main descriptive statistical techniques used for the analyses included frequency tables and measures of central tendency (means). The data from Turkey was reported in Chapter 4 and the data from England was reported in Chapter 5.

Stage 3: Analysis of the combined data set

The analyses involved comparing across participant groups. As summarised in Table 3.11, the responses of VI teachers and trainees for a given country were combined in order to gain a holistic insight into the VI teacher training programmes in each country. Robson and McCartan (2016) state that:

> 'Many of the questions we are interested in when carrying out a study producing quantitative data boil down to whether there are differences between the scores obtained under two conditions or by two groups. The *t-test* is very commonly used to compare the means of two groups' (p.444).

At this stage, the *paired two-group t-test* (i.e. 'the dependent samples *t*-test') was used to analyse the responses of VI teachers and trainees in each country in relation to training areas (Robson, 2011, p.450). As previously stated, the questionnaire items were combined into the following four training area variables: (1) vision and vision impairments, (2) additional/expanded core curriculum areas, (3) teaching and learning activities, and (4) partnership working. The responses of the respondents were analysed through *paired two-group t-test* for each of those variables. This analysis was reported in Chapter 4 and Chapter 5.

Stage 4: Data interpretation across two countries

In accordance with the comparative case study (CCS) approach, the aim was to compare and contrast the responses of the respondents in Turkey and England with each other. At this stage, therefore, *unpaired two-group t-test* (i.e. 'the independent samples *t*-test') was used in order to

investigate similarities and differences between the opinions of the respondents in both countries (Robson, 2011, p.450). The data interpretation across the two countries was reported in 'Chapter 6: Discussion'.

3.4.2. Textual data analysis

Textual data was gathered through interviews, which were conducted with VI teachers and tutors in Turkey and England. This data set was analysed using a framework based analytic method, which is known as 'thematic framework analysis' (Ritchie, Spencer and O'Connor, 2003) or 'template analysis' (King, 2004; 2012). This type of interview analysis concerns classifying and organising the data according to key themes, concepts and emergent categories (Ritchie, Spencer and O'Connor 2003). This method, therefore, might be considered as a style of a thematic analysis method (King, 2012), which is one of the common approaches to qualitative data analysis (Bryman, 2016). However, in contrast to the thematic analysis method, this type of analysis can be conducted with predetermined codes or themes, which might arise from the relevant research literature or research questions (Robson, 2011). Ritchie, Spencer and O'Connor (2003) state that:

> 'Where researchers are interested in a particular field or body of literature, or where they are *committed* to a particular theoretical perspective, they may wish to relate their local findings to a broader context and develop 'local' explanations in accordance with their chosen theoretical or analytical framework' (p.255, *italics* added).

As previously noted, by putting the learner at the centre, this study was mainly shaped in accordance with Bronfenbrenner's ecological systems model of human development. In addition, the research questions of the study were mainly conceptualised in line with the issues which emerged from the literature review (see 'Chapter 2: Literature Review'). Accordingly, it was considered that the framework based analytical method would be appropriate to analyse the interview data of the study.

In fact, regardless of the terminology, the procedure of 'thematic framework analysis' or 'template analysis' has been explained with quite similar stages and their advantages have been highlighted in a similar way (see Ritchie, Spencer and O'Connor, 2003 and King, 2004; 2012). For example, Ritchie, Spencer and O'Connor (2003) argue that the thematic framework analysis method 'facilitates rigorous and transparent data management such that all the stages involved in the "analytical hierarchy" can be systematically conducted' (p.220). Similarly, King (2004) argues that template analysis 'forces the researcher to take a well-structured approach to handling the data, which can be a great help in producing a clear, organised, final account of a study' (p.14). In line with this, it was considered that this method would be appropriate to analyse the interview data from two countries in a systematic way.

Although the stages of this approach have been described in a similar way, while analysing the interviews in this study, the data management stages of the 'thematic framework analysis' were mainly followed (explained by Ritchie, Spencer and O'Connor, 2003). As Table 3.12 illustrates, the analysis process consisted of the following four stages:

- Identifying initial themes or concepts
- Labelling/tagging the data
- Sorting the data by theme or concept
- Synthesising and summarising the data.

Stages of the analysis	Explanation of the process
Stage 1: Identifying initial themes/concepts	• Familiarise with the data • Export interview transcription documents into an NVivo software • Identify initial themes or concepts • Construct an initial conceptual framework/index
Stage 2: Labelling/tagging the data	• Apply the initial conceptual framework/index to the 'raw' data (i.e. indexing) • Add any missing subcategory to the conceptual framework/index • Refine/add categories to the conceptual framework/index
Stage 3: Sorting the data by theme/concept	• Sort or order the data according to similar content • Review the content intensely • Use the matrix format
Stage 4: Synthesising and summarising data	• Check the indexed data • Produce a report by synthesising and summarising the data

Table 3.12 Data management stages of thematic framework analysis (adapted from Ritchie, Spencer and O'Connor, 2003)

Stage 1: Identifying initial themes/concepts

In order to construct a thematic framework (or a template), Ritchie, Spencer and O'Connor (2003) argue that the researcher is required to have a thorough familiarisation with the data since 'the process of familiarisation is akin to building the foundation of the structure' (p.221). Data transcription is widely highlighted as an effective way for providing researchers with familiarisation with the data (e.g. Braun and Clarke, 2006; Robson, 2011). Prior to identifying initial concepts, the researcher, therefore, started to familiarise herself with the data set in each country through transcribing audio recordings of interviews into Word documents. At this first stage, interviews conducted in Turkey were transcribed in Turkish. These transcriptions were not translated into English in order to protect the accuracy of the data.

In relation to interview analysis, Cohen, Manion and Morrison (2007) argue that while atomising and fragmenting the interview data, the challenge is to maintain a sense of the holism of the interview and not to lose 'the synergy of the whole' (p.368). In particular, since this study had different interview data sets (i.e. there were two groups of participants in two countries), a more advanced tool was required to organise, manage and understand the data. At this stage, therefore, all transcriptions were uploaded into a QSR NUD*IST Vivo (NVivo) software package (version 11). The advantages of using NVivo software in the process of textual data analysis have been widely highlighted (see, for example, Richards, 1999; Bryman, 2016; Thomas, 2017). For instance, Richards (1999) states that NVivo has tools for recording and linking ideas in a range of ways, providing tools for handling rich data sets and information about them for browsing and enriching text. In this study, NVivo software particularly provided the researcher with organisation, management and understanding of the data (Richards, 1999) through helping protect 'the synergy of the whole' of each interview.

After creating one NVivo project file for all interview data sets, an initial 'conceptual scaffolding' (Ritchie, Spencer and O'Connor, 2003) or in other words an 'initial template' (King, 2004; 2012) was constructed. As illustrated in Table 3.13, in line with Bronfenbrenner's ecological systems model of human development, the initial conceptual framework was created at this stage. By putting the learner at the centre, it was developed in relation to potential roles of VI teachers within the *micro-*, *meso-*, *exo-*, *macro-* and *chronosystems* (see Table 3.13).

1. Microsystem - Teaching and learning activities (e.g. teaching braille, teaching ILS)
2. Mesosystem - Working with families (e.g. providing advice for families, providing guidance for families regarding the next educational setting of the learner) - Working with other professionals (e.g. providing information to the teacher about the needs of the learner)
3. Exosystem - Raising awareness of VI among peers and other staff (e.g. arranging raising awareness activities for peers in the school) - Curriculum policy development (e.g. supporting schools in developing policies)
4. Macrosystem (e.g. providing advice for policy-makers/decision-makers)
5. Chronosystem (e.g. teaching ILS, teaching low vision aids)

Table 3.13 The initial conceptual framework of the analysis (adapted from McLinden et al. 2016; 2017b)

Stage 2: Labelling/tagging the data

Following the construction of the initial conceptual framework, the next step was to apply this to the 'raw' data. Ritchie, Spencer and O'Connor (2003) name this process as 'indexing' instead of 'coding' because they state that indexing refers to a process that shows which theme/concept is being mentioned in a particular part of the data, similar to a subject index of a book (p.224). At this stage, data extracts were 'indexed' in relation to *micro-*, *meso-*, *exo-* and *macroystems* in accordance with Bronfenbrenner's ecological systems theory. For example, when a VI teacher participant described their role *with* the learner within the school setting (e.g. teaching braille), this part of the interview was indexed within the 'microsystem' section of the conceptual framework with the aid of NVivo software.

In relation to analysing interviews through thematic approaches, Braun and Clarke (2006) recommend working systematically through the entire data set by giving 'full and equal

attention to each data item' (p.89). At this stage, therefore, NVivo was a helpful tool to categorise data extracts with 'nodes' as ways of 'storing ideas' and asking questions to identify any combination of categories or to discover their relationship to other categories (Richards, 1999, p.56). As King (2012) argues, the central role of the template structure (i.e. conceptual framework) makes it very suitable for computer-assisted analysis, including NVivo software. NVivo was also useful for checking whether there were any missing categories to add or to refine categories within the conceptual framework. For example, by considering the time dimension, the participants' conceptualisations of their roles regarding the impact of VI teachers within the learner's lifespan were indexed within the 'chronosystem'.

Bryman (2016) argues that 'any item or slice of data can and sometimes should be coded in more than one way' (p.582) in the process of analysing interviews (i.e. codes might not be mutually exclusive of one another). While most parts/pieces of the data were indexed in one way, this was not always the case. For example, as demonstrated in Table 3.14, roles relating to teaching independent living skills was not considered as a role only at the *microsystem* level of the learner, but also as a life-long impact on the learner's lifespan. Therefore, data extracts relating to roles in relation to teaching independent living skills were indexed within both the 'microsystem' and the 'chronosystem'. Additionally, Turkish transcriptions were not translated into English at this stage; however, they were indexed in the English concepts.

At this stage, the conceptual analytic framework was finalised (see Table 3.14). However, as King (2004) states 'one of the most difficult decisions to make when constructing an analytical template is where to stop the process of development' (p.12). Therefore, as illustrated in Table 3.14, 'other' sections were created in the conceptual framework in order for some of the data extracts to be indexed.

1. Personal details 1.1. Previous/current work setting(s) 1.2. Year(s) of experience 1.3. Other
2. Microsystem (proximal influence) 2.1. Providing access to curriculum 2.1.1. Teaching braille/Moon 2.1.2. Teaching to use low vision aids 2.1.3. Teaching assistive technology 2.2. Teaching independent living skills 2.2.1. Teaching mobility/cane skills 2.2.2. Teaching self-care skills/teaching how to cook/how to dress independently 2.3. Other
3. Mesosystem (distal influence) 3.1. Types of interconnections 3.1.1. Multi-setting participation 3.1.2. Intermediate links 3.1.3. Inter-setting communications 3.1.4. Inter-setting knowledge 3.2. Partnership working with families 3.2.1. Giving information about the needs of the child 3.2.2. Providing advice/support for families 3.2.3. Directing the family to other professionals (e.g. low vision specialist) 3.3. Collaboration with other teachers/staff/professionals 3.3.1. Giving information about the needs of the child 3.3.2. Providing advice for accessibility/safety 3.4. Other
4. Exosystem (distal influence) 4.1. Raising awareness among peers/other teachers 4.1.1. Organising activities to raise awareness 4.2. Developing curriculum policy 4.3. Other
5. Macrosystem (distal influence) 5.1. Providing advice for policy-makers/decision-makers 5.2. Being a part of a national legislation process relating to learners with VI 5.3. Other
6. Chronosystem 6.1. Teaching independent living skills 6.2. Teaching independent learning skills 6.2.1. Introducing a new technology 6.2.2. Teaching low vision aids 6.3. Other
7. Other key issues

Table 3.14 Conceptual framework of the analysis of interviews (adapted from Ritchie, Spencer and O'Connor, 2003)

Stage 3: Sorting the data by theme/concept

Ritchie, Spencer and O'Connor (2003) state the purpose of sorting the data is 'to focus on each subject in turn so that the detail and distinctions that lie within can be unpacked' (p.229). At this stage, some data extracts were sorted by similar concepts, which emerged from the data. While analysing interviews with a thematic approach, Robson (2011) states coding (or sorting the data by themes) depends on whether the themes are 'data-driven' or 'theory-driven' or both. In this analysis, the data sorted by themes/concepts was both 'theory-driven' and 'data-driven'.

As illustrated in Table 3.15, data extracts were sorted by similar themes (however, they were not labelled according to numbers as illustrated in the table). Ritchie, Spencer and O'Connor (2003) state that while sorting the data by themes or concepts, there is an opportunity to assign data extracts to multiple locations. As demonstrated in Table 3.15, most of the data extracts were sorted by more than one concept.

Data extract	Label	Sorted by
While I was working in a special education class [in a mainstream school], I used to **request that other teachers and administrative staff gave the same task to my students as like other students in the school**. The head teacher [in the mainstream school] used to say to me – 'No problem, you don't have to attend the flag raising ceremony [with together all students in the school garden].' […] **They [other teachers and staff] don't value either you or your students.** (SET-9 / SS-VI)	**(1.1)** **(4.1)** **(4.3)**	• Distal influence • Exosystem – Raising awareness of other teachers • Other: Low expectation of other staff in the school
They [families] don't know exactly their children's potential. They don't know – what they can do in the future, do they have to look after their children throughout their whole life? […] **I took the parents to a centre for people with disabilities and I introduced visually impaired people in the centre**. One of them had climbed Mount Kilimanjaro. […] **I showed them to the parents in order for them to understand their children can be independent too.** (SET-10 / MS)	**(3.1.3)** **(3.2)** **(3.4)**	• Distal influence • Mesosystem – Inter-setting communications • Other: Changing attitudes of families towards disabilities

Table 3.15 Examples of sorting data extracts by themes from Study-1 (adapted from Ritchie, Spencer and O'Connor, 2003; Braun and Clarke, 2006)

Stage 4: Synthesising/summarising the data

At this stage, most of the Turkish data extracts that were indexed were translated into English. Braun and Clarke (2006) state that a write-up process of thematic analysis should tell the complicated story of the data by showing the merit and validity of data analysis. Therefore, it is recommended that the write-up process should provide sufficient evidence of the themes within the data by presenting enough data extracts to illustrate the prevalence of themes (Braun and Clarke, 2006). King (2004) states that while the researcher is selecting illustrative quotes and producing a coherent 'story' of the findings in order to summarise themes, s/he continues to build their understanding of the phenomena under the investigation (p.13). Accordingly, since the data was synthesised and summarised within the following chapters of the thesis, which are 'Chapter 4: Findings and Analysis (Study-1)' and 'Chapter 5: Findings and Analysis (Study-2)', data extracts were presented in order to illustrate their prevalence with themes/concepts within these chapters.

3.4.3. Critical reflection upon the 'trustworthiness' of the analysis

Robson (2011) states that establishing 'trustworthiness' is to persuade audience (including the researcher him/herself) that the findings are 'worth taking account of' (p.77). In order to 'persuade' an audience, Robson (ibid.) mentions *validity* as a key concept for establishing trustworthiness (i.e. whether the findings are 'really' as they should be). In relation to validity issues in mixed methods studies, it is accepted that the specific forms of validity for both quantitative and qualitative research are required to be considered separately (e.g. Onwuegbuzie and Johnson, 2006; Creswell and Plano Clark, 2011).

First, in relation to the numeric data analysis, as previously noted, to check and avoid mistakes in coding, the researcher worked together with the primary supervisor of the study. In addition, combining different items to gain aggregate scores was a strategy to increase the 'fidelity' of the numeric data analysis because it removed over reliance on numerous single questions and

multiple/over-testing (which risks a *type one* statistical error). Data summary checks were also conducted to ensure aggregate calculations had been carried out correctly.

Secondly, in relation to textual data analysis, Maxwell (1996) mentions the following three types of understanding as potential threats to validity: (1) description, (2) interpretation, and (3) theory. In relation to *description,* Maxwell argues that the potential threat might be inaccuracy or incompleteness of the data. Accordingly, it could be argued that recording and transcribing the interviews (with both VI teachers and tutors) enabled accuracy and completeness of the data. In relation to *interpretation,* Maxwell (1996) states that the main threat to valid interpretation is imposing the researcher's own meaning, rather than understanding the perception of participants. To overcome this issue, the analysis was drawn upon to force reflection and alternative views with others (including supervisors). However, since English is the researcher's second language, it was considered that there could be some misinterpretations of the interview data in Study-2. Therefore, in order to make sure there was no misinterpretation, the primary supervisor of the research checked several parts of the interview transcriptions and the researcher's interpretation at the early stage of the analysis. In relation to *theory,* it could be argued that theory testing with others (e.g. supervisor) enabled the researcher to reduce potential threats to the theoretical validity.

Finally, by considering the mixed methods analysis as a whole, triangulation supported the trustworthiness for the data analysis of this study. This was because the study involved more than one method drawn upon external sources (i.e. questionnaire and interview) and more than one stakeholder (i.e. VI teacher, trainee and tutor). It could be argued that this offered multiple perspectives and an enriched perspective for the study.

Although the advantages of conducting mixed methods studies are widely highlighted, some unique validity issues are acknowledged in mixed methods studies. For example, Onwuegbuzie

and Johnson (2006) state that 'because mixed [methods] research involves combining complementary strengths and non-overlapping weaknesses of quantitative and qualitative research methods, assessing the validity of findings can be particularly complex – yielding a *problem of integration*' (p.60, original *italics*). More specifically, Creswell and Plano Clark (2011) mention a number of potential validity threats in mixed methods studies in relation to (1) data collection, (2) data analysis and (3) interpretation.

In line with this, to minimise potential threats in terms of data collection, as Creswell and Plano Clark (2011) suggested, both types of data were gathered from almost the same population (as previously stated, VI teachers who participated in interviews also responded to the questionnaire in both countries). Additionally, to minimise potential threats when merging both the numeric and textual data, data collection tools were designed in order to address the same topic (as indicated, the interview and the questionnaire were designed to find out the views/opinions of VI teachers regarding their training). In relation to minimise potential threats relating to data analysis, as Creswell and Plano Clark (2011) suggested, a joint display with numeric categorical data and textual data themes was developed. For example, the data gathered through interviews with VI teachers was merged with the numeric data categories (i.e. vision and vision impairments, additional/expanded core curriculum areas, teaching and learning activities and partnership working).

With respect to interpretation process in mixed methods studies, Creswell and Plano Clark (2011) recommend presenting both sets of data results in an equal way in order to increase validity. However, the sets of data results were presented in an unequal way in this thesis. This was because the textual data gathering tool (i.e. interviews) was designed in order to answer two research questions of the study, while the numeric data gathering tool (i.e. questionnaire) was prepared in order to answer one research question of the study. Nevertheless, it was considered that using Bronfenbrenner's theoretical approaches towards human development as

a conceptual lens would minimise potential validity threats when combining/merging the data. Therefore, both types of data were interpreted by using Bronfenbrenner's terminology in order to have a consistent language for the data interpretation.

Conclusion

This chapter described how research questions of the study were addressed from philosophical, methodological, ethical and practical aspects. In terms of the philosophical perspective, it could be argued that this study was predominantly underpinned by a pragmatist approach. In line with its philosophical perspective, this study used both textual and numeric data sets from Turkey and England. By defining one VI teacher training programme in each country as a 'case', a comparative-case study design frame was developed. In keeping with this design frame, document interrogation, questionnaire and interview were selected as research methods of the study. Numeric and textual data was separately collected from three participant groups in each country (i.e. VI teachers, trainees and tutors). Numeric data was analysed using frequency tables and descriptive statistics with the aid of SPSS software (version 24). Textual data was analysed using a framework based analytic method, called a 'thematic framework analysis', with the aid of NVivo software (version 11).

The next two chapters of the thesis, 'Chapter 4: Findings and Analysis (Study-1)' and 'Chapter 5: Findings and Analysis (Study-2)', will present findings and analyses from Turkey and England respectively. In line with the aim of the study, 'Chapter 6: Discussion' will present similarities and differences between the two countries through discussing a comparison of the findings.

CHAPTER 4

FINDINGS AND ANALYSIS: STUDY-1 (TURKEY)

Introduction

This chapter presents and discusses the findings from Study-1 (Turkey). The textual data was gathered through interviews with Special Education Teachers (SETs) working in different educational settings (*n*=17) and tutors involved in the VI teacher training programme in the 2016-17 academic year in Turkey (*n*=6). This data was analysed using a 'thematic framework analysis approach' (Ritchie, Spencer and O'Connor 2003). The numeric data was gathered through self-completion questionnaires with SETs who graduated from the VI teacher training programme at Gazi University (*n*=54) and trainees who were studying at the VI teacher training programme in the 2016-17 academic year in Turkey (*n*=82). This data was analysed using descriptive statistical techniques, including frequency tables and measures of central tendency (means) with the aid of SPSS (version 24). In line with the research aims and the conceptual framework of the study, this chapter presents the following:

- An analysis of the conceptualisation of the roles of VI teachers (SETs) within the *ecosystem* of the learner with vision impairment in Turkey (Section 4.1).
- An examination of the stakeholders' views (SETs and tutors) regarding the VI teacher training programme in Turkey (Section 4.2).
- An analysis of the stakeholder's opinions (SETs and trainees) regarding VI teacher training in Turkey (Section 4.3).

The chapter concludes that through examining the stakeholders' views regarding the roles of VI teachers *with* the learner and with people *around* the learner, this analysis provides a useful insight into how the concept of the VI teacher has been constructed within and between *proximal* and *distal* environments of the learner in Turkey.

4.1. Analysing the role of SETs within the *ecosystem* of the learner

This section presents the analysis of the data, which was gathered through semi-structured interviews with 17 Special Education Teachers (SETs) working in different educational settings in Turkey (see work settings of the participants in 'Chapter 3: Methodology'). This data was analysed through using Bronfenbrenner's theoretical approaches towards human development as a conceptual lens. By putting the learner at the centre of this analysis, the participants' conceptualisations of their roles were discussed within the *micro-*, *meso-*, *exo-*, *macro* and *chronosystems* respectively.

4.1.1. The *microsystem*

As previously noted in 'Chapter 2: Literature Review', Bronfenbrenner (1977) defines the setting within the *microsystem* as a place where the developing person can engage in face-to-face interaction. In line with this, to gain an insight into how SETs conceptualised their roles within the *microsystem* in Turkey, the participants' roles *with* the learner within the learner's immediate setting were examined. This analysis suggested that participants' conceptualisations of their roles *with* the learner differed depending particularly on the age of learners that they were working with and the work setting(s) in which they worked. For example, a participant working in a Special Education and Rehabilitation Centre (SERC) described their role as below:

> There are different age groups of people [with vision impairment] here – from pre-school age groups to adults. We generally work with **adult people to improve their [independent] daily living skills [**and] we **do additional teaching activities with school age children** here. (SET-17 / SERC)

As another example, a participant working with learners with multiple disabilities and vision impairment (MDVI) in a separate classroom in a special education school (SS) described their role, saying that:

> We can't attach importance to academic skills here too much. Our students have both visual impairment and severe intellectual disabilities. We focus on [**improving] other skills – such as self-care skills and [independent] daily living skills**.
> (SET-14 / SS-MDVI)

Similarly, another participant working in a vocational training centre (VTC), affiliated to a special education school for pupils with vision impairment, defined their main role as improving the [independent] daily living skills of learners, as follows:

> We attach more importance here to teach social skills rather than academic skills. We have a module for teaching food preparation, **we teach skills that the child will use in their social life in this module** – any skill that is useful for the child, [such as] **teaching them how to cook soup, how to make a cup of tea**. (SET-5 / VTC)

As summarised in Table 4.1, the participants reported their roles relating to teaching [independent] daily living skills, including teaching self-care skills, teaching how to prepare food and how to dress independently. Additionally, a few participants reported that they taught mobility skills to learners in the close environment of the school (e.g. streets nearby the school). The participants also described their roles within the *microsystem* as facilitating learners' access to the curriculum. As summarised in Table 4.1, those participants described such roles as teaching braille, using differentiated teaching and learning materials, using oral teaching strategies and using large printed texts for learners with low vision. Some of the statements of those participants can be seen below:

> Our mission and our purpose here is – let's say a year-1 child – **to teach them the same things that other year-1 children learn by making additional adaptations according to their needs.** (SET-10 / MS)

> We do the same things with [general] classroom teachers – teaching what they teach students from year-1 to year-4, by only **using braille and some different equipment [for example] in maths, such as a cubarithm board and cubes** so that children follow the general national education curriculum. (SET-7 / SS-VI)

Consequently, although the conceptualisation of the roles of participants differed depending particularly on the work settings in which they worked, as summarised in Table 4.1, they broadly reported their direct roles *with* the learner as teaching [independent] daily living skills and facilitating access to the curriculum. In addition, any direct role *with* the learner in the home setting was not reported by any of the participants. As a result, within the scope of the *microsystem,* this analysis suggested that the participants conceptualised their roles within the immediate setting in which the learner actively participates at a particular time (mostly in the school setting as a student) as teaching [independent] daily living skills and facilitating access to the curriculum (see Table 4.1).

Immediate setting	Roles of participants *with* the learner
Home	• No direct role reported *with* the learner
School/Centre	• Teaching [independent] daily living skills, including: - Teaching self-care skills (e.g. washing hands, brushing teeth) - Teaching how to prepare food [independently] - Teaching how to dress [independently] • Facilitating access to the curriculum, including: - Teaching braille - Using 'differentiated' teaching and learning materials (e.g. a cubarithm board and cubes) - Using oral teaching strategies - Using large printed texts
Other immediate environment	• Teaching mobility skills

Table 4.1 Summary of participants' conceptualisations of their roles within the *microsystem*

4.1.2. The *mesosystem*

To gain an insight into potential multi-setting interrelations developed by VI teachers among major settings of the learner (e.g. between school and home), participants' views regarding their roles with families and other professionals who were linked to the learner were examined. As previously noted (see 'Chapter 2: Literature Review'), Bronfenbrenner (1979) mentions four types of interconnections within the scope of *mesosystem* level. In line with this, the views of participants regarding their roles relating to establishing interconnections between home and school/centre settings were discussed according to the following four types of interconnections (Bronfenbrenner, 1979):

- Multi-setting participation
- Indirect linkage
- Inter-setting communications
- Inter-setting knowledge.

4.1.2.1. *Multi-setting participation*

Within the scope of the 'multi-setting participation' type of interconnection within the *mesosystem*, Bronfenbrenner (1979) mentions the following two types of links: (1) p*rimary links* (if the developing person participates in more than one setting of the *mesosystem*), (2) *supplementary links* (if other people participate in the same settings of the *mesosystem*, such as a teacher's visit to the child's home) (p.210). Considering these links, it seemed that no participant reported any role in relation to establishing *primary links* for the learner within the *mesosystem* of the learner. However, although they did not report any direct role *with* the learner in the home setting, two participants' statements might be considered as establishment of *supplementary* links between home and school settings. For instance, one of those participants reported that:

> Previously, **I used to visit the children's homes once in a month.** This was very useful. Currently, I can't. […] During my visits, I used to ask some questions to the child, for example – 'who tidied up your room today?' or 'who made your bed?' Sometimes, I used to ask the child to bring me one glass of water **in order to understand how much the child was independent at home.** (SET-2 / SS-VI)

It might be assumed that this participant established some *supplementary* links within the *mesosystem* of the learner through engaging in two major settings in which the learner actively participated (i.e. home and school) in order to promote the independence of the learner. Additionally, in relation to establishing *supplementary* links, although Bronfenbrenner (1979) emphasises a 'direct link' between persons in the immediate settings in which the developing person participates, it was assumed that video enabled other persons to participate directly within the learner's immediate setting (as implied by McLinden et al., 2016). For example, one participant appeared to establish some *supplementary* links between home and school settings, using video to participate in the home setting of the learner, saying this:

> **I took some videos while giving toilet training to the child at the school, sent videos to the family, and wanted them to do the same steps with me.** […] They were worried and they didn't want to do this at first but they followed what I said. […] After that, we succeed in giving toilet training to the child in 2-3 months. (SET-4 / SS-MDVI)

Accordingly, these two participants' statements might each be considered as some sort of *supplementary* link that was established between home and school settings in order to develop and promote the independence of the learner (see Table 4.2).

4.1.2.2. *Indirect linkage*

Bronfenbrenner (1979) explains 'indirect linkage' as a connection between two settings established by a third person who delivers as an intermediate link between the two settings in which there is no longer face-to-face meeting among persons (p.210). Since there are no longer face-to-face meetings within this type of interconnection, Bronfenbrenner (ibid.) describes the third person who establishes an intermediate link as a member of a *second-order network* between the two settings. In line with this, it seemed that no participant reported any role

relating to developing intermediate links as a member of a *second-order network* between the two settings. Nevertheless, one participant working in a Guidance and Research Centre (GRC) reported that after carrying out functional vision assessment, if the child has low vision, he refers the family to a low vision clinic, as below:

I inform families about the needs of the child. For example, I give advice families about screen readers, such as MaGIC for Windows**. I also refer some families to a low vision clinic.** (SET-11 / GRC)

Accordingly, it might be considered that this participant would establish some sort of *intermediate* link between two settings as a member of a *second order network* within the *mesosystem* of the learner (see Table 4.2).

4.1.2.3. *Inter-setting communications*

Bronfenbrenner (1979) describes inter-setting communications within the *mesosystem* as connections that need to occur in a direct way between settings, such as through face-to-face interaction, telephone conversations or written messages (p.210). While establishing inter-setting communication, Bronfenbrenner (ibid.) also emphasises that the message from one setting to the other setting should be conveyed 'with the express intent of providing specific information to persons in the other setting' (p.210). In line with this, some participants' roles with other teachers could be considered as some sort of inter-setting communications between schools and centres. For instance, participants working in GRCs described their roles as preparing an educational plan about the learner in order for the classroom teacher to follow. Their statements can be seen below:

When the child gets their medical diagnosis [for their impairment], our main function here is, **to make an educational diagnosis [report] for him.** After that, to refer the child in the most appropriate educational setting by **preparing an appropriate educational plan about him.** (SET-1 / GRC)
When a child has a medical diagnosis, we start assessing roughly the educational performance of the child by using performance indicator tools. […] Based on that, **we determine short-term and long-term goals [for the teacher to follow]** and then we refer the child to an educational setting. (SET-11 / GRC)

A number of participants also reported that they communicated with teachers within the school setting through face-to-face interactions and telephone conversations in order to speak about the progress of the learner. For example, one participant stated that:

> **We arrange meetings with children's teachers** either in special schools or in mainstream schools at the beginning of each school year. […] We **also exchange our phone numbers and keep in touch with each other.** (SET-17 / SERC)

Within the scope of establishing inter-setting connections, Bronfenbrenner (1979) highlights that the communication can be occurred as one-sided or in both directions. In line with this, the analysis illustrated that inter-setting communications might be established by SETs in both directions. Accordingly, as summarised in Table 4.2, it was assumed that the SET participants established inter-setting communications (one-sided and/or both directions) between school and centre settings by providing 'specific information' about the learner.

Additionally, this analysis illustrated that inter-setting communications might be developed by SETs between home and school/centre settings through establishing communication with families. For example, some participants reported their roles in relation to providing advice for families about the needs of the learner. In particular, the participants working in GRCs reported that they provided advice in relation to the next educational setting. One of those participants stated that:

> We sometimes have different opinions with families [about the child's next educational setting]. For example, they [families] may insist that their children should go to a mainstream school for full-time inclusion but in that case, **we [may] explain them it would be better if their child goes to a special education class [in a mainstream school] and gets one-to-one support from a special education teacher.** (SET-12 / GRC)

Interestingly, while participants were expressing their views regarding their roles with families, most of the participants reported a number of negative attitudes of families towards disability, including 'denial of disability', 'overprotection of the child' and 'lower/over expectation about the child'. Some of these views can be seen below:

Many families can't accept their child's impairment. One of the child's families didn't tell their child that they could see until the child went to school. The child used to think that everyone around him couldn't see either. (SET-7 / SS-VI)
Children can't learn independent living skills at home. […] Mothers put shoes on their children, they put clothes on their children… **They raise such dependent children that they can't even do their own work! (**SET-15 / SS-MDVI)
They [families] **expect more than their child is capable of – they are dreaming.** […] or **they don't have any expectation from their child.** When they have no expectation, they believe it is not necessary to take their child to the school. (SET-8 / SS-MDVI)

In line with this, it seemed that some participants conceptualised their roles between home and school settings as reducing barriers to independence through changing the attitudes of families towards disabilities as part of 'family training'. For example, one participant reported that:

They [families] don't know exactly their children's potential. They don't know – what they can do in the future, do they have to look after their children throughout their whole life? […] **I took the parents to a centre for people with disabilities and I introduced visually impaired people in the centre**. One of them had climbed Mount Kilimanjaro. […] **I showed them to the parents in order for them to understand their children can be independent too.** (SET-10 / MS)

Consequently, as summarised in Table 4.2, participants mostly conceptualised their roles between home and school/centre through establishing communications with families in order for them to change their attitudes towards disability.

4.1.2.4. *Inter-setting knowledge*

Bronfenbrenner (1979) defines 'inter-setting knowledge' as information or experience that exists in one setting about the other setting, which can be gained from a variety of sources, including oral and written information, advice or traditional knowledge handed from one generation to the next (p.217). In line with this, the interrelations between the school and other setting(s) that were established by a few participants were considered as inter-setting knowledge between settings. For example, a participant with vision impairment reported that:

I teach **how to use a cane for mobility based on my own experiences** [as a person with vision impairment]. (SET-2 / SS)

Accordingly, since it was assumed that learners could gain some inter-setting knowledge through this type of interconnection, it was considered as a sort of inter-setting knowledge type of interconnection within the *mesosystem* (see Table 4.2).

Consequently, as summarised in Table 4.2, when participants' views about their distinctive roles at the *mesosystem* level of the learner were analysed according to Bronfenbrenner's four types of interconnections within the *mesosystem*, it appeared that participants mostly conceptualised their roles as establishing supplementary links and inter-setting communications between home and school/centre settings. In relation to establishing communications between home and school/centre settings, most participants' understanding of their roles in relation to developing communications with families was shaped as changing the attitudes of families towards disability as part of 'family training'. It also appeared that participants mostly conceptualised their roles between home and school settings as developing communications with families rather than developing communications with other people (including other teachers) between school and centre settings (see Table 4.2).

Major settings	Roles of participants
Home – School/Centre (*supplementary* links)	• Visiting home to promote the independence of the learner • Recording video to share with families for developing ILS
Home – Other setting(s) (*intermediate* links)	• Referring families to a low vision clinic
Home – School/Centre **School – Centre** *(inter-setting communications)*	• Providing teachers with information about the learner (through direct communication or educational reports) • Providing information and advice for the family regarding: - needs of their children - next educational setting • Changing the attitudes of families towards disability
School – Other setting(s) *(inter-setting knowledge)*	• Sharing experiences based on experiences as a person with vision impairment

Table 4.2 Summary of participants' conceptualisations of their roles within the *mesosystem*

4.1.3. The *exosystem*

In order to gain an insight into interconnections developed by VI teachers, the participants were asked whether they arranged any activity in order to raise awareness among peers and/or other teachers relating to vision impairments in the school. The participants working in special education school settings did not report any role in relation to raising awareness within the school setting. Some of the other participants (those who were working in mainstream settings) reported that they spoke with peers and other teachers in the school on behalf of the learner. For example, two participants stated that:

While I was working in the special education class [in a mainstream school], I used to **request that other teachers and administrative staff gave the same task to my students as like other students in the school.** (SET-9 / SS-VI)
In order to raise awareness, [while working in a mainstream school] I used to **take my students into their classrooms and tell them [peers] how they should communicate with students with vision impairment.** (SET-6 / VTC)

However, a few participants reported a certain number of negative attitudes among other teachers and staff in the school towards pupils with vision impairment (particularly those worked in mainstream school settings). For example, two participants reported that:

Once, while I was sitting with one of the other teachers in the school, M. [the child's name] came to near me and asked a question in maths. The teacher got very surprised and asked me – 'Can she really do this?' **Because these children are in the special education class, there might be different [lower] expectations.** (SET-10 / MS)
The head teacher [in a mainstream school] said to me – 'No problem, you don't have to attend the flag raising ceremony [with together all students at school garden]' […] **they [other teachers and staff] don't value either you or your students.** (SET-9 / SS-VI)

Accordingly, it seemed that the role in relation to raising awareness among other teachers and staff in the school was conceptualised mostly in terms of changing their attitudes towards disability. It also seemed that the participants conceptualised their roles only as speaking with other people *around* the learner on behalf of the learner. As summarised in Table 4.3, this analysis suggested that the external influence of participants within the inner setting of the learner (i.e. school) was mostly focused upon speaking with peers, other teachers/staff in the

school on behalf of the learner in order to improve communication of learners with vision impairment with their peers and to change attitudes towards disability.

Nevertheless, a few participants' conceptualisations of their roles in relation to modifying the national curriculum could be considered as 'shaping a distal influence' within the *exosystem* (as stated by McLinden et al., 2017b). For instance, most of the participants emphasised the importance of teaching [independent] daily living skills; however, they reported a number of challenges in relation to teaching those skills. For example, one participant stated that:

> Mobility, [independent] daily living skills definitely should be taught as a part of curriculum. Children need to learn how to go to the market and do shopping [independently]. **We force children 'learn this', 'learn that' [academically] and they can't acquire enough independent living skills [at the school].** (SET-15 / SS-MDVI)

In line with this, a few participants reported that they made some adjustments in one of the subjects of the national curriculum in order to teach [independent] daily living skills. Specifically, these participants reported that they made some modifications to the national curriculum subject, known as 'free activity lesson' [in Turkish: 'serbest etkinlik dersi']. In fact, as part of the national curriculum, this subject was designed to improve children's cognitive, physical, social and cultural development by doing a variety of leisure time activities, including playing games, singing songs and arranging chess tournaments in the school (MoNE, 2010). However, a few participants reported that they adjusted this subject in order to teach [independent] daily living skills. For example, one participant stated that:

> I arranged the free activity lesson to be able to teach [independent] daily living skills – four class hours in a week **to teach self-care skills, [such as] washing hands, washing mouth, using fork and spoon.** (SET-16 / SS-VI)

Consequently, as summarised in Table 4.3, this analysis suggested that the participants' external influences within the immediate setting of the learner (i.e. school) was conceptualised as raising awareness among other people *around* the learner (i.e. teachers, staff and peers) and modifying a curriculum subject in order to teach [independent] daily living skills.

External influences within immediate setting(s) of the learner

• Raising awareness among peers, other teachers and staff in the school through:
  - Speaking with other teachers/staff (mostly in order to change their attitudes towards disability)
  - Speaking with peers on behalf of the learner with VI (mostly in order to promote communication)
• Adjusting a curriculum subject to teach [independent] daily living skills

Table 4.3 Summary of participants' conceptualisations of their roles within the *exosystem*

4.1.4. The *macrosystem*

As noted in 'Chapter 2: Literature Review', *macroystems* can exist either in formal explicit forms (e.g. laws, regulations and rules) or informal implicit forms (e.g. in the minds of society's members as ideology) (Bronfenbrenner, 1977). Indeed, Bronfenbrenner (1977) states that 'most macrosystems are informal and implicit – carried, often unwittingly, in the minds of the society's members as ideology made manifest through custom and practice in everyday life' (p.515). In line with this, it seemed that participants did not report any engagement role within the formal forms of *macrosystems* of the learner, such as engaging with and navigating national legislation. However, a few participants' views illustrated that some formal forms of the *macrosystem* might have an impact on the roles of SETs. For example, a few participants reported a number of challenges in teaching mobility skills because of regulations that they were legally required to follow. One of these participants' views can be seen below:

> It is difficult to give mobility training. […] in order to give mobility training you need to go outside, go to streets, go to roads but you can't go out beyond the school garden. **You have to get official permission even to take children outside.** (SET-13 / MS)

In line with this, it seemed that some regulations that teachers were required to follow (i.e. some formal forms of the *macrosystem*) created a number of challenges for SETs. Additionally, a few participants' views about society's attitudes towards disability illustrated some of the impacts of the informal/implicit forms of *macrosystems* on the distinctive roles of SETs with respect to

developing the independence of learners. For example, in relation to teaching mobility skills, one participant reported that:

> They [my students] don't want to use a cane [because] they feel embarrassed. I tell them 'this is your eyes, if you don't use this, you may face a lot of problem' but while going together in the street, you know our country, **you may face people in the street saying 'oh pity' or saying 'be careful'.** Then, children don't want to use a cane, of course. (SET-10 / MS)

Similarly, another participant's views about society's attitudes towards SETs illustrated some of the impacts of the informal/implicit forms of the *macrosystems*, as below:

> **Because we are special education teachers, people may think that we should have a disability too.** […] While I was working in [special education school for learners with vision impairment] years ago, a man shook his hand in front of my face to check whether I could see or not. He must have thought that this teacher can't see either because she works here. (SET-6 / VTC)

Consequently, although participants did not report any direct 'engagement' role within the *macrosystems*, it appeared that some explicit (e.g. legal requirements) and implicit forms of *macrosystems* (e.g. the attitude of society members towards disability) might affect the distinctive role of SETs.

4.1.5. The *chronosystem*

To gain a holistic insight into how SETs conceptualised their roles within and between different layers of the *ecosystem* of the learner, the conceptualisations of the role of the participants within and between *micro-*, *meso-*, *exo-* and *macrosystems* were revisited through a consideration of the *time* element. Considering the time dimension, short-term or long-term changes to the *ecosystem* can be considered throughout the *life course* within the scope of the *chronosystem* (Bronfenbrenner, 1992). In line with this, the analysis suggested that the way in which some of the participants conceptualised their roles might be considered as short-term impacts on the development of the learner. This was because the interaction between these participants and learners seemed to occur only within the school setting between the years of primary and secondary schooling of the learner (e.g. facilitating access to the curriculum by

using oral teaching strategies). In other words, in terms of the *chronosystem*, some participants' conceptualisations of their roles could be assumed as 'here and now' in the learner's life course.

However, a number of the roles that the participants reported could be considered as long-term impacts over the learner's life span. For example, some participants reported that they taught the learner [independent] daily living skills within the school setting (within the *microsystem* level). Similarly, a few participants reported that they modified one of the curriculum subjects in order to teach [independent] daily living skills (within the *exosystem* level). Accordingly, since developing and promoting the independence of the learner can be considered as a long-term impact over the learner's life span, these roles can be considered as 'life course impact' on the development of the learner (although the role was conceptualised within a limited time frame).

Additionally, as noted in 'Chapter 2: Literature Review', finding a balance between providing access to the core curriculum and developing the learner's independence over time might be accepted as one of the distinctive roles of VI teachers within the scope of the *chronosystem* (see McLinden et al., 2017b). Considering this, it appeared that SETs might encounter a number of challenges in finding a balance between teaching academic skills and independent living skills

Consequently, although participants mostly recognised the importance of promoting and developing learners' [independent] daily living skills, it seemed that they mostly conceptualised their roles within a limited time frame (i.e. in the years of primary and secondary schooling). Therefore, this analysis suggested that most of the SET participants perceived their roles as a short-term impact throughout the *life course* of the learner.

Summary

In order to gain an insight into the *proximal* and *distal* influences developed by SETs within the *ecosystem* of the learner, semi-structured interviews that were conducted with 17 SETs working in different educational settings were analysed using Bronfenbrenner's theoretical approaches towards human development as a conceptual lens. Accordingly, this analysis suggested that SET participants mainly conceptualised their roles within the *proximal* system of the learner (e.g. school) as facilitating access to the curriculum (e.g. teaching braille, using tactile strategies) and teaching [independent] daily living skills (e.g. teaching self-care skills). This analysis also suggested that SET participants mostly conceptualised their *distal* influences within the *ecosystem* of the learner with families, rather than other people *around* the learner (e.g. other teachers). The analysis also revealed that *distal* systems (both explicit and implicit forms) might have some impacts on the distinctive role of SETs.

Consequently, this analysis illustrated how VI teachers in Turkey (i.e. SETs) conceptualised their one-to-one roles *with* the learner and with people *around* the learner within and between different layers of the *ecosystem* of the learner. The following section discusses how the VI teacher training programme in Turkey prepares SETs for these roles from the points of the view of SETs and tutors.

4.2. Analysing the stakeholders' views on the programme through interviews

The previous section illustrated the analysis of SET participants' conceptualisations of their roles within and between different layers of the *ecosystem* of the learner. In line with this, this section presents an analysis of the views of stakeholders (i.e. SETs and tutors) regarding the VI teacher training programme in Turkey (i.e. Gazi University). By using Bronfenbrenner's theoretical approaches towards human development as a conceptual lens, this section presents findings from two related analyses:

- An analysis of SET participants' views regarding their pre-service training (considering their *proximal* and *distal* influences within the *ecosystem* of the learner).
- An analysis of the views of tutors regarding VI teacher training in Turkey (considering the preparation of SET trainees for their potential roles within and between *proximal* and *distal* systems of the learner).

4.2.1. Examining the views of SETs regarding their pre-service training

As stated in 'Chapter 3: Methodology', throughout interviews, besides the questions regarding their roles, the SET participants were also asked to express their views regarding their pre-service training (VI training) in order to gain insight into what works (or does not work) in practice for providing educational support for learners. In line with the aims of the study, the views of participants regarding their pre-service training were analysed using Bronfenbrenner's theoretical approaches on human development as a conceptual lens. This section, therefore, discusses the views of participants regarding their pre-service training in relation to their (1) *proximal* influences (i.e. their roles *with* the learner) and (2) distal influences (i.e. their roles with other people *around* the learner) within the *ecosystem* of the learner.

4.2.1.1. *Proximal* influences

Bronfenbrenner (2001) defines *proximal* processes within the human development as:

> 'Over the life course, human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving bio psychological human organism and the persons, objects, and symbols in its immediate external environment […] such enduring forms of interaction in the immediate environment are referred to as proximal processes. Examples of such processes include feeding or comforting a baby; playing with a young child; child-child activities; problem solving; caring for others; making plans' (p.6).

In line with this, this analysis suggested that SET participants mostly conceptualised their *proximal* influences as teaching independent [daily] living skills (e.g. teaching self-care skills, teaching how to dress independently) and facilitating access to the curriculum (e.g. teaching

braille, using tactile strategies in teaching process) within the school setting. Accordingly, this section discusses the views of participants regarding how they were prepared for such roles during their pre-service training under the following themes in accordance with the 'conceptual scaffolding' of the thematic framework analysis (see 'Chapter 3: Methodology'):

- Facilitating curriculum access
- Teaching [independent] daily living skills
- Working with learners with MDVI.

Facilitating curriculum access

As the previous section illustrated, some participants reported their roles in the teaching and learning process as using 'differentiated' teaching and learning materials (see Table 4.1). In line with this, regarding their pre-service training a number of participants shared their views of how they gained their knowledge, understanding and skills in relation to modifying teaching and learning materials in accordance with the needs of learners with vision impairment. More specifically, a few participants reported that they believed that they were provided with enough knowledge, understanding and skills relating to this role throughout their pre-service training. These participants, for example, reported that they felt competent in teaching with a number of 'differentiated' mathematics materials such as a cubarithm board and slate. As an example, one participant expressed that:

> In my opinion, **we got enough training in terms of how we should adapt the curriculum.** We know very well how we should adapt, how we should prepare [teaching and learning] materials in accordance with the needs of those who have low vision and those who are blind. (SET-2 / SS-VI)

It also seemed that most of the participants believed that they improved their knowledge, understanding and skills relating to adapting teaching and learning materials in accordance with the needs of learners with vision impairment particularly through practicum experiences in their pre-service training.

In relation to teaching and learning activities, a number of participants also particularly reported their views about their pre-service training relating to braille. They commonly reported that their pre-service training provided them with a broad knowledge and understanding relating to braille, such as knowledge and understanding about the braille alphabet in Turkish. However, these participants reported that their pre-service training did not provide them with sufficient skills to *teach* braille to learners. For example, a participant reported that:

> We had a module about braille in the second year of the training. **The only thing that was taught us – this is slate, this is paper, and this is stylus; these are numbers and these are letters. That's it.** (SET-4 / SS-MDVI)

Besides pre-service training, a few of participants emphasised the importance of having teaching experience in braille in order to be able to *teach* braille, as the following statements illustrate:

> I learnt many things in relation to braille in my pre-service training, including contractions of words **but while I was working one-to-one with the student, I developed my skills [in braille].** (SET-15 / SS-MDVI)

> I can clearly say that we don't graduate from the programme as 100 percent competent in braille and mobility skills. **I think we learn these in time, by using these skills.** (SET-1 / GRC)

It seemed that participants mostly believe that their pre-service training provided them with a basic knowledge and understanding of braille; however, they commonly believed their pre-service training was not 'good enough' to provide them with sufficient competencies to *teach* braille. Therefore, a few participants suggested that in-service training in braille might be useful to improve the skills of SETs who would teach braille.

Although participants did not report any role in relation to teaching assistive technology, some of them reported their views regarding their pre-service training in relation to this. They expressed that their pre-service training did not provide them with enough knowledge, understanding and skills relating to assistive technology. For example, a participant stated that:

> **Clearly, I can say that our training was not enough in terms of [assistive] technology.** I don't think we have detailed knowledge [about assistive technology]. We know standard things that everybody knows. **We should have known more detail and extra things in terms of [assistive] technology.** (SET-1 / GRC)

Similarly, the below participant reported that their pre-service training covered general topics related to technology with these statements:

> [Special education] teachers graduate without knowing screen reader software. We had a module on computers but this was just a standard module related to computer. […] **I know braille and screen reader software very well but not with [the help of] pre-service training, because of my vision impairment.** (SET-11 / GRC)

Accordingly, although participants seemed to have positive views regarding their pre-service training in relation to preparing them for their roles regarding teaching and learning activities, some of them appeared to believe that their pre-service training did not provide enough knowledge, understanding and skills in relation to assistive technology and teaching braille.

Teaching [independent] daily living skills

As previously stated, one of the *proximal* influences established by SETs was reported as teaching [independent] daily living skills (e.g. teaching self-care skills, teaching how to dress independently) within the school setting. In relation to this, a number of participants expressed their views regarding their pre-service training relating to teaching independent living skills (ILS). For example, one participant reported that:

> We did our internship in relation to teaching academic skills in the final year [of the programme]. […] but **we did also a skill analysis for teaching [independent] daily living skills during the internship.** (SET-12 / GRC)

Similar to the views regarding their role in facilitating curriculum access, it appeared that some of the participants believed their practicum experiences were useful for preparing them to teach independent living skills.

Interestingly, it seemed that the participants' views about their pre-service training relating to teaching independent living skills differed from each other depending on the length of work experience of participants. For example, a participant who had less than 10 years' experience

reported that their pre-service training focused largely on teaching academic skills, whereas a participant with more than 10 years' experience reported that their pre-service training focused more on teaching social skills rather than academic skills, as below:

I think our training [nearly 20 years ago] focused a great deal on teaching [independent] daily living skills and self-care skills […] rather than teaching academic skills. […] **The training now focuses mostly on teaching academic skills because they [SETs] have to follow the same [national] curriculum in the school**. (SET-6 / VTC)
I think **[nearly 5 years ago] we got approximately 70 percent training on teaching academic skills, 30 percent on teaching social skills.** (SET-4 / SS-MDVI)

Accordingly, it seemed that the focus of the content of the VI teacher training in Turkey underwent some changes over the years. For example, in line with developments in the curriculum design for pupils with vision impairment in Turkey, it seemed that the content of the training focused more upon teaching academic skills. One of the participants, for example, reported that:

At that time, nearly 20 years ago, there were modules in the [national] curriculum for visually impaired children, which were related to social skills, such as [independent] daily living skills. **We used to teach how to make beds, how to fold the clothes within these modules. These were removed from the curriculum and now it is very different**, of course. (SET-7 / SS-VI)

Additionally, participants also shared their views regarding their pre-service training in relation to teaching mobility skills. It seemed that most of them believed they improved their knowledge and understanding in relation to mobility; however, it seemed that some of participants believed that their pre-service training did not provide them with enough skills to *teach* mobility. For example, two of the participants reported that:

We took a module relating to mobility and independence – how to give mobility training to a person with vision impairment; **but I don't know anything else.** I mean, **we learnt techniques to teach cane – I think there are 12 techniques in total – but what is else?** (SET-17 / SERC)
I don't think many [special education] teachers are capable of teaching mobility. I don't mean that teaching mobility skills is to have knowledge about techniques of teaching how to use cane, such as teaching diagonal techniques or other techniques. You can find all this information on the internet anyway. **The important thing is to use these techniques in practice and to have skills to teach mobility.** (SET-11 / GRC)

In line with these views, it seemed that SET participants mostly believed that they gained knowledge and understanding relating to mobility throughout their pre-service training. However, some of them reported that they did not gain enough competencies to *teach* mobility skills throughout their pre-service training.

Working with learners with MDVI

Some of the participants, particularly those working in separate classrooms that were designated for learners with multiple disabilities and vision impairment (MDVI) in special education schools, reported their views about their pre-service training in relation to those learners. It seemed that these participants' views about their pre-service training differed from each other depending on the length of their work experience. For example, while the participants who recently graduated from the programme (i.e. those who had less than 10 years' experience) reported that their pre-service training covered some aspects regarding learners with MDVI, the participants who had graduated earlier reported that their pre-service training did not cover issues regarding learners with MDVI. As an example, one of those participants stated that:

> **We didn't have training about children with multiple disabilities [nearly 10 years ago]. I wish we did.** Now, they [trainees] have training in relation to autism, hearing impairment because all fields are unified by the special education field. I think they have more advantages now. (SET-12 / GRC)

However, the participants who completed the programme in recent years seemed to believe that their pre-service training did not provide them with enough competencies to be able to work with learners with MDVI. For example, two participants working with learners with MDVI in separate classrooms reported that:

> [Nearly 5 years ago] we took a module that was related to children with multiple disabilities and vision impairments, but this was not good enough. **In my opinion, we were trained as teachers who would work with children who have only vision impairment without any other additional disability or impairment.** (SET-4 / SS-MDVI)

> We learnt briefly about other impairment areas in relation to students who have vision impairment and additional impairments, such as sign language; **but we are not experts**. I mean, for example, **we can't support a child who has a speech difficulty as like a speech therapist does.** (SET-3 / SS-MDVI)

It seemed that participants commonly believed that they gained broad knowledge and understanding about the needs of learners with MDVI; however, they believed that they did not gain enough skills/competencies to be able to work with learners with MDVI. In line with this, some participants suggested that an in-service training programme relating to learners with MDVI might be useful.

4.2.1.2. *Distal* influences

As previously stated in Section 4.1.1, this analysis suggested that *distal* influences established by SETs were reported by the participants as establishing interrelations between home and schools/centres (e.g. changing attitudes of families and raising awareness among peers and other teachers in the school setting). In line with this, the participants expressed their views in relation to how they were prepared for such roles throughout their pre-service training. The views of participants were presented under the following themes in accordance with the 'conceptual scaffolding' of the thematic framework analysis (see 'Chapter 3: Methodology'):

- Partnership role with families
- Raising awareness among peers and other teachers

Partnership role with families

The analysis suggested that SET participants mostly conceptualised their *distal* influences as establishing interrelations between home and school/centres (see Section 4.1.1). They mostly conceptualised their partnership role with families within the scope of 'family training' strategies. In line with this, it appeared that the participants mostly believed that their pre-service training provided them with enough knowledge and understanding in relation to 'family training'. For example, one participant stated that:

> **We learnt how we should communicate with families who have children with disabilities.** The module [on family training] has been useful. We have good communication with families here. (SET-17 / SERC)

It seemed that participants mostly believed their pre-service training provided them with enough knowledge and understanding for their roles with families within the scope of the module for family training. A participant also reported that the practicum experience was useful for the role of family training, saying the following:

> **While I was doing my internship, we did a family training with a parent of one of the pupils in relation to one skill area. We took a video around 10-15 minutes to guide the parent to teach that skill.** Then we shared these videos with our tutor. I think this was effective. (SET-4 / SS-MDVI)

Besides the pre-service training, with respect to the partnership role with families, a few participants also highlighted the importance of experience for the role of providing advice for families. For example, a participant expressed that:

> You get training but when you contribute to your experience in the field over time, you learn. [For example], **the advice that I gave to a parent in the first year of my job is not the same as the advice that I give now, of course.** Definitely, the training contributes […] **but I think the impact of training is only partial so I can say that – training plus experience.** (SET-1 / GRC)

Accordingly, although the importance of having experience was highlighted for the roles with families, the participants' views regarding their pre-service training in terms of the role of 'family training' seemed to be mostly positive. More specifically, using video records through practicum experiences was reported as useful for this role.

Raising awareness among peers/other teachers

In order to understand how the pre-service training programme prepares VI teachers for their roles within the *distal* system(s) of the learner, participants were asked to express their views regarding their pre-service training relating to arranging awareness-raising activities for peers and other teachers about vision impairments. A number of participants reported that their pre-service training informed them about the necessity of raising awareness for peers and other teachers in the school in an implicit way. For instance, one participant reported that:

> We didn't have any instruction in our training in relation to raising awareness; but **our tutors told us about this within the other modules – such as, you will have to do this, you will have to do that.** (SET-17 / SERC)

Similarly, another participant reported that they were familiarised with the term of raising awareness in their pre-service training, saying that:

> We had a module that was known as inclusive practice. Within that module, **they [tutors] suggested what we should do when we take the child into a [mainstream] classroom with other students.** (SET-4 / SS-MDVI)

Accordingly, although the content of the VI teacher training did not specifically provide trainees with knowledge and understanding relating to raising awareness about vision impairment, SET participants mostly believed that they improved their knowledge and understanding relating to raising awareness among peers and other teachers during their pre-service training. However, it seemed that the programme did not provide explicit knowledge and understanding regarding how teachers would organise activities in order to do this.

Consequently, this analysis suggested that while SET participants commonly believed that they gained knowledge and understanding for their roles within the inner system of the learner (e.g. facilitating curriculum access), most of them believed that they did not gain enough *skills* to work effectively *with* learners (including with learners with MDVI), such as teaching braille, assistive technology and mobility. In relation to *distal* influences, this analysis suggested that the SET participants commonly believed that they gained broad knowledge, understanding and skills to be able to work within the outer system of the learner throughout their pre-service training, including conducting 'family training'. In line with the SET participants' views regarding their pre-service training, the next section presents and discusses the views of tutors regarding VI teacher training in Turkey.

4.2.2. Examining the views of tutors regarding VI teacher training in Turkey

In order to gain an insight into VI teacher training in Turkey from the perspectives of tutors, as stated in 'Chapter 3: Methodology', six tutors' views were obtained through unstructured interviews (including one associate professor, three assistant professors and two lecturers). Due to 'recent' changes in teacher training programmes in the area of special education in Turkey (see 'Chapter 2: Literature Review' for more details), tutors were asked to share their views in relation to the 'current' VI teacher training programme that was provided for year-3 and year-4 trainees in the 2016-2017 school year. They were also asked to express their views regarding the recent changes in the teacher training system in terms of preparing SETs in the area of vision impairment education. Therefore, in line with the conceptual framework of the study, this section firstly presents the views of tutors regarding the VI teacher training programme in Turkey relating to preparing SET trainees for their potential *proximal* and *distal* influences within the *ecosystem* of the learner. It then presents and discusses the views of tutors regarding the reunited special education teacher training programme in terms of preparing SETs in the area of vision impairment education.

4.2.2.1. Preparation for *proximal* influences

The tutors were asked to express their views regarding preparing SET trainees in the programme (which was delivered for year-3 and year-4 trainees) in relation to teaching and learning activities within different educational setting(s). They reported their views about the programme mostly in line with the conceptualisation of the roles of SETs within the immediate setting(s) of the learner (see 'Section 4.1.1'). For instance, they mainly reported their views in relation to preparing trainees for their potential roles in facilitating access to the curriculum and teaching mobility skills. It seemed that the tutors believe that trainees were provided with enough knowledge, understanding and skills in relation to adapting the curriculum in accordance with the needs of learners with vision impairment throughout their pre-service

training. For example, one tutor described the process of teaching trainees how to adapt the science subject in the national curriculum, as follows:

> While teaching trainees how to teach science to students with vision impairment, we discuss the [national] science curriculum – **how they can adapt topics in the curriculum in accordance with the needs of students with vision impairment**. We determine nearly 15-20 criteria in order to examine science books for primary school level [for students from year-1 to year-4] in the national curriculum in accordance with the needs of students with vision impairment. Then, we discuss **how they can adapt materials for that topic, how they can adapt that topic into haptic or audio formats**. (Tutor-5T)

The tutors reported a variety of techniques for teaching trainees how to adapt the national curriculum in accordance with the needs of learners with vision impairment for their potential teaching roles. For example, one tutor reported that video recording of practicum experiences has been used as a tool to illustrate the teaching and learning process to trainees, as below:

> Currently, I give a lecture relating to teaching methods – relating to how to teach concepts, how to develop materials in accordance with the needs of children with vision impairment. I try to use examples [of practice] in my lectures as much as possible. For example, **I show some videos that illustrate what other teacher candidates previously did in order to illustrate the teaching process.** (Tutor-4T)

In relation to preparing trainees for their potential teaching roles, one tutor particularly reported that trainees were provided with enough knowledge, understanding and skills to teach braille during their pre-service training. However, she reported that braille competencies of some SETs might not be sufficient because of a lack of practices of SETs in teaching braille, saying this:

> Many teachers working in special schools for the visually impaired are saying: 'I don't know braille'. This is a huge problem for us. […] **I think braille competencies of teachers of the visually impaired should be checked each year to enable them to continue their job.** (Tutor-3T)

As previously stated in 'Section 4.1.1', the SET participants reported one of their direct roles within the immediate setting of the learner (i.e. *proximal* influences) as teaching mobility skills. The analysis suggested that the SET participants mostly believed that they gained broad knowledge and understanding regarding mobility skills but they did not gain enough skills in *teaching* mobility skills. However, one tutor reported that trainees were provided not only with

knowledge and understanding relating to teaching mobility skills but also with enough competencies/skills in order to be able to teach mobility skills. She described the process of teaching trainees how to teach mobility skills by using VI simulation techniques. Nevertheless, she added that mobility training has not been effectively provided in Turkey because of a lack of recognised additional/expanded core curriculum in Turkey, saying the following:

> These important [mobility] skills are not being systematically taught in schools because [special education] teachers give all their attention to academic skills since they have to follow the national curriculum. Also, **since there is no specific module for teaching mobility and independence skills in the curriculum, even if a teacher gives cane training in the school, this training is not systematically being provided. Definitely, mobility and independence should be systematically taught to students with vision impairment as a part of the curriculum.** (Tutor-4T)

In relation to the teaching roles of SETs within the immediate setting(s), the tutors mostly emphasised the importance of practicum experiences of trainees for providing them with skills in their teaching role within different educational settings. One of them, for example, described the practicum experiences of trainees as one of the strengths of the programme, saying this:

> Trainees do practicum not only in school environments, they also do it in Guidance and Research Centres, classrooms for students with MDVI in special schools and vocational centres. So **they gain knowledge and experience regarding their roles in a range of settings.** (Tutor-1T)

Accordingly, it seemed that tutors mostly believed that trainees gained enough knowledge, understanding and skills in relation to their roles within the immediate setting(s) of the learner throughout their pre-service training. However, they reported a number of concerns regarding the preparation of trainees in relation to their future teaching roles, including challenges in applying their knowledge, understanding and skills in practice. For example, one tutor stated that:

> I believe we provide our teacher candidates with enough skills in terms of teaching and learning activities. **However, the challenge is: how they are going to apply these skills in their [teaching] role?** For example, no matter how we provide skills with them in teaching maths, we are never sure that they will apply these skills to their maths teaching. (Tutor-3T)

In line with this, the analysis suggested that a lack of previous teaching experience among

trainees might present challenges for some trainees when it came to applying their knowledge, understanding and skills in their teaching practice.

To sum up, this analysis implied that the views of SET participants and tutors differed from each other regarding preparing trainees for their potential *proximal* influences. For example, some SET participants appeared to believe that they did not gain enough skills in relation to their direct teaching roles, such as teaching braille and mobility throughout their pre-service training. However, it appeared that the tutors believed that trainees were provided with enough knowledge, understanding and skills throughout their pre-service training in relation to their future one-to-one roles *with* the learner, including teaching braille and mobility. However, it appeared that both SET participants and tutors mostly believed that practicum experiences were useful in order to prepare trainees for their future teaching roles. Nevertheless, the tutors reported some concerns in relation to applying skills of trainees in their future teaching practice, including a lack of previous teaching experience among trainees and a lack of recognised expanded core/additional curriculum for pupils with vision impairment in Turkey.

4.2.2.2. Preparation for *distal* influences

In order to gain an insight into how trainees were prepared for their roles with other people *around* the learner between immediate and external environments (i.e. potential *distal* influences), the tutors were asked to express their views in relation to preparing trainees for their future partnership roles with families. They reported that the programme covered the issues relating to the future roles of trainees with families through a separate module relating to 'family training and guidance'. Similar to most of SET participants, tutors believed that the programme provided trainees with enough knowledge, understanding and skills regarding their future roles with families throughout this module in the programme. One tutor also reported that trainees were provided with knowledge and understanding regarding their roles with

families with not only this module but also other modules in the programme, saying this:

> I am not responsible for the module for family training in the programme but I try to include this topic in my lectures [which is related to functional vision assessment]. This is because **no matter what the role of teacher is, families always should be a part of it.** (Tutor-5T)

Although tutors mostly emphasised that the programme provided trainees with enough knowledge and understanding in order to be able to conduct 'family training', some tutors highlighted that family training was not commonly provided by SETs in schools. For example, one tutor reported that although SETs were required by Turkish legislation to do family training, SETs only provided a small amount of advice for families (not 'family training'). Similarly, another tutor reported that:

> Since 1997, [special education] teachers have been required to do family training by the special education legislation, which is numbered 573, **but teachers don't do family training in schools because there is no [scheduled/protected] time for this training.** So what do teachers do? For example, when parents come to the school to pick up their child, the teacher talks to parents about their child – a summary of the day about what the child did at that day. Or, if there is an issue, the teacher talks to this issue with parents, for example, saying: 'your child started biting his nails'. **This is not family training.** (Tutor-2T)

It seemed that tutors believed the programme provided knowledge, understanding and skills for trainees in relation to 'family training'. However, they mostly believed that systematic family training was not provided by SETs, despite the legal requirements in Turkey. Accordingly, this analysis suggested that the partnership role of SETs with families was conceptualised by the tutors as a systematic 'training' for families, which not only included providing advice and guidance for families but also included 'changing attitudes of families towards disabilities'.

In relation to preparing trainees for their future roles within the *distal* systems of the learner, tutors were also asked to express their views in relation to preparing trainees for carrying out activities in order to raise awareness among peers and other teachers in the school setting. Similar to most of SET participants, it seemed that tutors believed the programme provided trainees with enough knowledge, understanding and skills in relation to doing this. For example,

one tutor expressed that the programme provided trainees with knowledge and understanding regarding such roles through using case study examples, as below:

> Within the module in the programme, which is about inclusive practice, we **give some case study examples to our students [trainees] – not only for preparing the child for the school environment; but also to prepare the child for other environments, including work environments**. [Within the scope of this module] **students [trainees] prepare awareness-raising activities to prepare people in the close environment of the child as well as teachers.** (Tutor-1T)

Similar to SET participants, tutors also reported that the programme provided knowledge and understanding in relation to raising awareness in an interwoven way. One of the tutors, for example, reported that practicum experiences in mainstream school settings enabled trainees to learn how to organise awareness-raising activities for peers, saying that:

> **For raising awareness, we focus on changing the attitudes of other children towards children with vision impairment**. We focus on practices for children who are in the mainstream school within inclusive education. For example, **during practicum experiences, we do some activities around how sighted children can include children with vision impairment to their plays. Once, for example, in the pre-school setting, we taught sighted children how they would guide children with vision impairment.** (Tutor-4T)

Consequently, it appeared that tutors believed trainees were provided with enough knowledge and understanding to develop their skills relating to their roles with other people *around* the learner. In relation to *distal* influences, this analysis suggested that the programme is heavily focused upon preparing trainees for their future roles with families rather than other people within the external environment of the learner (in keeping with the findings of how SETs understand their roles).

4.2.2.3. Views regarding the reunited SET training programme

The tutors who participated in interviews were also asked about the reunited SET training programme (see 'Chapter 2: Literature Review' for more information about the programme). They were particularly asked to share their views about the programme in terms of preparing trainees to provide educational support for learners with vision impairment. It seemed that they

mostly believed that the changes in the approach of preparing SETs were necessary for a variety of reasons, including a shortage of teachers who were trained in the area of special education. For example, one tutor expressed that:

> **Previously, there were many problems in practice because of a lack of general special education teacher training programme in Turkey.** Teachers used to be trained only in three fields [intellectual disabilities, hearing impairment and vision impairment] and **because of this there were many problems especially in terms of meeting the needs of children who have other special needs.** (Tutor-6T)

They also reported that trainees who graduated from the programme as 'teachers of the visually impaired' encountered a number of challenges while they were applying for a job. For instance, a tutor reported that the reunited programme was necessary because of a decrease in the hiring of graduates of the programme, saying this:

> There are approximately 2000 students in special education schools for students with vision impairment in Turkey. Considering that 50-60 trainees graduate from our programme each year, there was no need for new teachers for these schools. In 2014, we noticed that **our students [trainees] had some problems in terms of employment.** (Tutor-1T)

Accordingly, it seemed that tutors commonly believed the reunited SET training programme was necessary due to the following two reasons: (1) the reduction in hiring of graduates from the teacher training programme in the area of vision impairment education, and (2) the shortage of teachers to provide educational support for learners who have other special educational needs and disabilities rather than vision impairment. Nevertheless, they reported a number of concerns regarding the VI teacher training considering educational support for learners with vision impairment. For instance, one of these concerns was a reduction in the amount of specific modules in the area of vision impairment education in the reunited SET training programme. In relation to this, two tutors' statements can be seen below:

> A teacher who will work with students with vision impairment should be specialised [in the VI field], such as doing functional vision assessment, teaching braille, mobility and independence. **I think providing training relating to all special education areas hinders the specialisation of teachers in the area of vision impairment.** (Tutor-3T)

> The specific modules related to the vision impairment field will be limitedly provided. For example, I am in charge of one module related to functional vision assessment, which has been delivered during two terms, but henceforward it will be provided only during one term. […] Also, **I don't think it will be possible to provide a comprehensive training in relation to specific areas in the vision impairment field, such as teaching braille, mobility and independence.** (Tutor-5T)

Other concerns were reported as a lack of tutors who specialised in the area of vision impairment education in other universities in Turkey as well as an ambiguity in the 'group' of students with whom trainees will work when they complete their training. For example, one tutor stated that:

> I don't think other universities will be able to provide teacher training in the area of vision impairment. I think our university will be the only one teacher training provider in the vision impairment field as before. But, **the thing is, graduates from those universities will work with students with vision impairment and perhaps graduates from our programme will not work those students, I don't know. That's the problem.** (Tutor-3T)

Consequently, it appeared that tutors had a number of concerns relating to the united SET training programme, including the reduction of the amount of specific modules in the area of vision impairment education and the lack of specialisation of teachers in the field of vision impairment education. Nevertheless, it also appeared that they believed that the reunited SET training programme would be useful in terms of preparing teachers in the area of special education to provide educational support for learners with special educational needs and disabilities apart from learners with vision impairment. In line with this, some tutors believed that the reunited programme would provide advantages for SET candidates in terms of employment.

4.2.3. Summary

Using Bronfenbrenner's theoretical approaches towards human development as a conceptual lens, this section presented and discussed the analysis of the views of 17 SETs and 6 tutors regarding the VI teacher training in relation to preparing trainees for their potential *proximal* and *distal* influences within the *ecosystem* of the learner. This analysis suggested that tutors

believed the programme provided trainees with enough knowledge, understanding and skills relating to their future roles *with* the learner (i.e. potential *proximal* influences). However, by putting the learner at the centre of the analysis, the analysis enabled insight to be gained into what might work and not work in educational practice for learners with vision impairment regarding the VI teacher training. For example, this analysis suggested that while SET participants commonly believed that they gained knowledge and understanding for their roles within the inner system of the learner (e.g. facilitating curriculum access), some of them believed that their training did not provide them with enough specialist *skills* to work effectively *with* learners with vision impairment (e.g. teaching braille, mobility), including with learners with MDVI. In line with this, some of the SET participants recommended in-service training for SETs, in particular for teaching braille and mobility skills.

In relation to *distal* influences, this analysis suggested that SET participants mostly believed their pre-service training provided them with broad knowledge and understanding to be able to work within the outer system of the learner such as conducting 'family training' and raising awareness of peers and other teachers. However, the analysis suggested that rather than providing advice and information for families, 'family training' was conceptualised by tutors in a more systematic way mostly as changing the attitudes of families towards disabilities.

This analysis also illustrated the views of the tutors regarding the reunited SET training programme. It seemed that the tutors believed that the reunited programme would be useful for many reasons, including in terms of graduate employment. Nevertheless, the analysis implied that the programme would continue to focus upon VI teacher training through specific modules in the area of vision impairment education but there would be a decrease in the content of such modules in the reunited programme. Therefore, it seemed that tutors mostly believed this programme would hinder the specialisation of teachers in the field of vision impairment education. In particular, with respect to the delivery methods of the programme, this analysis

suggested that most of the stakeholders believed that practicum experiences were useful for preparing trainees for their roles both within *proximal* and *distal* systems.

In order to find out 'how well' the programme prepares VI teachers for their roles, the following section presents and discusses the stakeholders' opinions (i.e. SETs and trainees) regarding the programme through questionnaires.

4.3. Analysing stakeholders' opinions through questionnaires

As stated in 'Chapter 3: Methodology', questionnaires were designed to find out stakeholders' opinions (i.e. SETs and SET trainees) regarding their VI teacher training. In line with this, the questionnaire aimed to investigate the opinions of SETs/SET trainees on their pre-service training relating to the following broad topics:

- Vision and vision impairments
- Additional/expanded core curriculum areas
- Teaching and learning activities
- Partnership working.

In order to gain the opinions of the programme stakeholders regarding how well they increased their knowledge, understanding and/or skills in relation to those areas throughout their pre-service training, the respondents were asked to provide a rating on the 4-point rating scales on the questionnaire (*1=not at all/not very well; 2=very little/fairly well; 3=somewhat/well; 4= to a great extent/very well*) (see Appendix-3a). The data was descriptively analysed using SPSS software (version 24).

As noted in 'Chapter 3: Methodology', 54 Special Education Teachers (SETs) and 82 SET trainees responded to the questionnaire (*n*=136). While representing the data, the number of respondents from 90 to 136 were assumed as 'most' of the respondents; between 63 and 89 as 'over half' of respondents; between 30 and 62 as 'some' respondents; and between 1 and 29 were assumed as 'a small number' of respondents.

4.3.1. Demographic information of respondents

***Special Education Teachers (SETs)* –** As seen in Table 4.4, Special Education Teachers (SETs) who responded to the questionnaire were 18 males (33%) and 36 females (67%). Most SET respondents (80%) were in the age groups of 20-29 (*n*=21) and 30-39 (*n*=22). Over half of SET

respondents (52%) reported that they had teaching experience with learners with vision impairment of between 1 and 5 years (*n*=18) or 6 and 10 years (*n*=10). Most of them (70%) reported that they worked with children with vision impairment aged between 8 and 10 (*n*=38). In relation to work setting(s), over half of them (69%) reported that they worked in special education schools for pupils with vision impairment (*n*=37). A small number of SET respondents (17% and 15%) reported that they worked in a Guidance and Research Centre (GRC) (*n*=9) or a Special Education Rehabilitation Centre (SERC) (*n*=8). A small number of respondents (4%) reported that they worked in other setting(s) (*n*=2), including the Turkish Blind Sport Federation.

Sample characteristic	**N (%)**
Gender	
Male	18 (33%)
Female	36 (67%)
Age	
20-29	21 (39%)
30-39	22 (41%)
40-49	11 (20%)
50+	0 (0%)
Experience (years)	
Less than 1	2 (4%)
1-5	18 (33%)
6-10	10 (19%)
11-15	14 (26%)
15+	10 (19%)
Age group of VI learners working with*	
5-7	21 (39%)
8-10	38 (70%)
11-15	14 (37%)
16+	13 (24%)
Not currently working	2 (4%)
Work setting*	
Special education school (VI)	37 (69%)
Guidance and Research Centre	9 (17%)
SERC	8 (15%)
MS (primary/lower secondary)	6 (11%)
Vocational Training Centre	3 (6%)
Special Education Centre	2 (4%)
Other	2 (4%)

Table 4.4 Demographic information of SET respondents (*not mutually exclusive)

SET trainees **–** As noted in 'Chapter 3: Methodology', the questionnaire was distributed to year-3 and year-4 trainees who were studying at the VI teacher training programme in the 2016-17 academic year. In total, 82 trainees responded to the questionnaire. Over half of them (54%) were in the third year of their training (*n*=44) and the rest of them (46%) were in the fourth of year of their training (*n*=38). SET trainees who responded to the questionnaire were 26 males (32%) and 55 females (67%). Only one respondent 'preferred not to say' their gender (1%). All respondents (100%) were in the age group of 18-25 (*n*=82).

4.3.2. The opinions of the respondents regarding their pre-service training

This section addresses the questions about the opinions of SETs and SET trainees regarding their gained knowledge, understanding and/or skills throughout their pre-service training relating to the following areas:

- Vision and vision impairments
- Additional/expanded core curriculum areas
- Teaching and learning activities
- Partnership working.

Vision and vision impairments

In order to find out opinions of SETs and SET trainees regarding their knowledge, understanding and/or skills gained in relation to vision and vision impairments throughout their training, they were asked to rate four questions on the questionnaire (see Table 4.5). It appeared that the respondents believed that their learning in relation to the implications of vision impairments was quite positive, with most of them (92%) reporting their knowledge and understanding had increased 'somewhat' (*n*= 84) or 'to a great extent' (*n*=41). However, it appeared that they were far less positive relating to their learning about the visual system, with

over half of respondents (62%) reporting their knowledge and understanding had been increased 'not at all' (*n*=16) or 'very little' (*n*=68) by their training.

Knowledge, understanding and/or skills relating to principles and practices of functional vision was viewed mostly positive, with most of the respondents (80%) reporting their learning had increased 'somewhat' (*n*=52) or 'to a great extent' (*n*=57) throughout their pre-service training. Even though slightly less positive, responses regarding their learning about learners with vision impairment and additional or complex needs showed a similar pattern. Most of the respondents (73%) appeared to believe that they increased their knowledge and understanding regarding the specific developmental needs of learners with vision impairment and additional or complex needs 'somewhat' (*n*=75) or 'to a great extent' (*n*=25) during their pre-service training (see Table 4.5).

	***Rating Scale* (*N*=136)**				***Mean***		
To what extent have you increased your knowledge, understanding and/or skills in relation to:	**1** Not at all	**2** Very little	**3** Somewhat	**4** To a great extent	SET (*n*=54)	Trainee (*n*=82)	**Total**
The implications of vision impairments on physical, cognitive, emotional and social development of learners	0 (0%)	11 (8%)	84 (62%)	41 (30%)	3.17	3.26	**3.22**
The principles and practices of assessing functional vision	3 (2%)	24 (18%)	52 (38%)	57 (42%)	2.94	3.37	**3.20**
The specific developmental needs of learners with VI and additional or complex needs	7 (5%)	29 (21%)	75 (55%)	25 (18%)	2.67	3.00	**2.87**
The anatomy of the eye and how the visual system works	16 (12%)	68 (50%)	46 (34%)	6 (4%)	2.33	2.29	**2.31**
Total					**2.78**	**2.98**	**2.90**

Table 4.5 Responses to questionnaire items in relation to 'vision and vision impairments'

Additional/expanded core curriculum areas

The respondents were asked to rate five questions on the questionnaire in relation to additional/expanded core curriculum areas (see Table 4.6). The results illustrated that the respondents believed that their learning in relation to the principles and practice of independent living was quite positive, with most of respondents (89%) reporting their knowledge, understanding and/or skills had been increased 'somewhat' (*n*=63) or 'to a great extent' (*n*=59) by their training. It appeared that the respondents were far less positive about their learning in relation to developing effective social and emotional skills of learners. Most of the respondents (78%) reported that their training had increased their knowledge, understanding and/or skills relating to how to help learners to develop effective social and emotional skills 'very little' (*n*=29) or 'somewhat' (*n*=67). Learning about low vision devices to make effective use of functional vision showed a similar pattern. Most of the respondents (80%) reported that their knowledge, understanding and/or skills had been increased relating low vision devices 'very little' (*n*=24) or 'somewhat' (*n*=62) by their training.

It also appeared that the respondents were far less positive about their learning relating to ICT hardware and software, with some respondents (43%) reporting their knowledge, understanding and/or skills had been increased 'not at all' (*n*=11) or 'very little' (*n*=48) by their training. Their opinions about the principles and practices associated with transition seemed to be far less positive. Some of the respondents (33%) reported that their learning relating to principles and practices associated with successful transition had been increased 'not at all' (*n*=7) or 'very little' (*n*=38) by their training (see Table 4.6).

To what extent have you increased your knowledge, understanding and/or skills in relation to:	*Rating Scale* (*N*=136) 1 Not at all	2 Very little	3 Somewhat	4 To a great extent	*Mean* SET (*n*=54)	Trainee (*n*=82)	**Total**
The principles and practice of habilitation, mobility, orientation, and independent living	1 (1%)	13 (10%)	63 (46%)	59 (43%)	3.30	3.34	**3.32**
Low vision devices to make effective use of functional vision	4 (7%)	24 (18%)	62 (46%)	46 (34%)	2.87	3.26	**3.10**
How to help learners with VI to develop effective social and emotional skills	1 (1%)	29 (21%)	67 (49%)	39 (29%)	2.87	3.18	**3.06**
The principles and practices associated with successful transition for VI learners	7 (5%)	38 (28%)	68 (50%)	23 (17%)	2.80	2.78	**2.79**
A variety of ICT hardware and software to support pupil's learning	11 (8%)	48 (35%)	51 (38%)	26 (19%)	2.52	2.78	**2.68**
Total					**2.87**	**3.07**	**2.99**

Table 4.6 Responses to questionnaire items in relation to 'additional/expanded core curriculum areas'

Teaching and learning activities

The respondents were asked to rate five questions on the questionnaire regarding their knowledge, understanding and/or skills gained regarding teaching and learning activities (see Table 4.7). The opinions of respondents relating to selecting and using the most effective teaching approaches seemed to be quite positive, with most of the respondents (86%) reporting their learning had been increased 'well' (*n*=63) or 'very well' (*n*=52) by their training. Similarly, the opinions of the respondents were quite positive about their learning regarding arranging settings/classrooms for accessibility and safety. Most of the respondents (89%) reported they had increased their learning relating to arranging settings/classrooms for accessibility and safety in accordance with learners with vision impairment 'well' (*n*=78) or 'very well' (*n*=44). Knowledge about adapting teaching and learning materials in an appropriate

medium was also deemed to be positive. Most of the respondents (88%) reported that their training was delivered 'well' (*n*=65) or 'very well' (*n*=47) in preparing them to adapt teaching and learning materials in an appropriate medium, including braille and audio formats. However, the programme was viewed less positively by the respondents in relation to specialist equipment and technology. Some of the respondents (37%) reported that this had been covered 'not very well' (*n*=5) or 'fairly well' (*n*=44) throughout their training. Similarly, the programme was mostly viewed less positively by the respondents in preparing them to make appropriate arrangements for formal assessment approaches. Some of the respondents (29%) reported that this had been covered 'not very well' (*n*=6) or 'fairly well' (*n*=34) (see Table 4.7).

	***Rating scale* (*N*=136)**				***Mean***		
How well did/does your training prepare you to be able to:	**1** Not very well	**2** Fairly well	**3** Well	**4** Very well	SET (*n*=54)	Trainee (*n*=82)	**Total**
Select and use the most effective teaching approaches	1 (1%)	20 (15%)	63 (47%)	52 (39%)	3.07	3.32	**3.22**
Arrange settings/classrooms for accessibility and safety	1 (1%)	13 (10%)	78 (57%)	44 (32%)	3.20	3.22	**3.21**
Adapt teaching and learning materials in an appropriate medium (e.g. braille, audio, etc.)	2 (2%)	22 (16%)	65 (48%)	47 (35%)	3.13	3.17	**3.15**
Make appropriate arrangements for formal assessment approaches	6 (4%)	34 (25%)	61 (45%)	35 (26%)	2.93	2.91	**2.92**
Use specialist equipment and technology to overcome/reduce the impact of sight loss	5 (4%)	44 (33%)	57 (42%)	30 (22%)	2.67	2.93	**2.82**
Total					**3.04**	**3.06**	**3.04**

Table 4.7 Responses to questionnaire items in relation to 'teaching and learning activities'

Partnership working

To investigate the opinions of respondents on how well they increased their knowledge, understanding and/or skills relating to partnership working, the respondents were asked to rate five questions on the questionnaire (see Table 4.8). The analysis illustrated that the programme was viewed mostly quite positively by the respondents in relation to raising awareness of vision impairment. Most of the respondents (75%) reported that their knowledge, understanding and/or skills had increased in relation to raising awareness of vision impairment among peers, teachers and other staff 'well' (*n*=66) or 'very well' (*n*=35) throughout their training. Learning in relation to providing key stakeholders (including families) with data and information on the progress of the learner showed a very similar pattern. Most of the respondents (74%) rated the programme as delivering 'well' (*n*=65) or 'very well' (*n*=35) in relation to providing key stakeholders (including families) with data and information on the progress of the learner. Providing advice and guidance for services working in partnership with families showed a similar pattern. Most respondents (71%) rated the programme as delivering 'well' (*n*=61) or 'very well' (*n*=35) in relation to preparing them to provide advice and guidance for services working in partnership with families.

The programme was mostly viewed less positively in relation to preparing them to collaborate with other professionals. Some of the respondents (43%) rated the programme as 'not very well' (*n*=12) or 'fairly well' (*n*=46) in relation to preparing them to collaborate with other professionals to contribute to the assessment of development of pupils. Similarly, the programme was rated as 'not very well' (*n*=21) or 'fairly well' (*n*=48) by some respondents (50%) in relation to preparing them to be able to advise stakeholders (e.g. MoNE) on issues relating to the educational needs of pupils with VI (see Table 4.8).

How well did/does your training prepare you to be able to:	***Rating Scale* (*N*=136)**				***Mean***		
	1 Not very well	**2** Fairly well	**3** Well	**4** Very well	SET (*n*=54)	Trainee (*n*=82)	**Total**
Raise awareness of vision impairment among peers, teachers and other staff	5 (4%)	30 (22%)	66 (49%)	35 (26%)	2.83	3.05	**2.96**
Provide key stakeholders (including parents/carers) with data and information on the progress of the learner	7 (5%)	29 (21%)	65 (48%)	35 (26%)	3.04	2.88	**2.94**
Provide advice and guidance for services working in partnership with parents/carers	6 (4%)	34 (25%)	61 (45%)	35 (26%)	3.00	2.87	**2.92**
Collaborate with other professionals to contribute to the assessment of development of pupils	12 (9%)	46 (34%)	52 (38%)	26 (19%)	2.65	2.70	**2.68**
Advise stakeholders (e.g. MoNE etc.) on issues relating to the educational needs of pupils with VI	21 (15%)	48 (35%)	51 (38%)	16 (12%)	2.67	2.32	**2.46**
Total					**2.80**	**2.70**	**2.74**

Table 4.8 Responses to questionnaire items in relation to 'partnership working'

4.3.3. Summary

This section presented the opinions of the SETs and SET trainees, which were gathered through questionnaires, regarding their pre-service training within the following areas: (1) vision and vision impairments, (2) additional/ECC areas, (3) teaching and learning activities and (4) partnership working. The lowest mean level of satisfaction for the whole group (*n*=136) was in relation to partnership working ($\overline{x} = 2.74$) and this was found to be significantly lower than all the other areas of training*.

* paired two-group *t*-test 'partnership working' ($\overline{x} = 2.74$) with:
- 'vision and vision impairments' ($\overline{x} = 2.90$) SD=0.59; *t* = 2.686; p<0.05
- 'additional/expanded core curriculum areas' ($\overline{x} = 2.99$) SD=0.61; *t*=4.695; p<0.005
- 'teaching and learning activities' ($\overline{x} = 3.04$) *t*=6.074; SD=0.58; p<0.005

Conclusion

This chapter presented and discussed the findings and analysis from Study-1 (Turkey). The data was gathered from three groups of stakeholders linked to the VI teacher training programme in Turkey (i.e. SETs, tutors and SET trainees) through interviews and questionnaires. By bridging textual and numeric data, two of the research questions were answered in this chapter as follows:

(1) How do VI teachers (SETs) conceptualise their roles with the learner (proximal influences) and with people around the learner (distal influences) within and between immediate/external environment(s) of the learner in Turkey?

Proximal influences were conceptualised by most of SET participants as 'facilitating access to the curriculum' (e.g. teaching braille, using tactile strategies in the teaching process) and 'teaching [independent] daily living skills' (e.g. teaching self-care skills) mostly within the school settings in which the learner actively participates only as a student. *Proximal* influences were also conceptualised by a few participants as teaching mobility within the close environment of the learner. No SET participant reported any role *with* the learner within the home setting of the learner.

The SET participants conceptualised their roles between the major settings of the learner (i.e. home and school/centre) mostly as establishing supplementary links and inter-setting communications with people *around* the learner. The SET participants reported their roles as providing information and advice for the family and changing attitudes of families towards disability as part of 'family training' within/between home and school/centre settings. Some of the SET participants described their roles within and between school and centre settings as providing teachers with information about the learner (through direct communication or educational reports).

External influences within the immediate setting of the learner were reported by most of the SET participants as raising awareness among other people in the school through speaking with other teachers/staff and peers on behalf of the learner. Within the scope of external influence within the inner setting, a few participants also stated that they modified a curriculum subject to teach [independent] daily living skills. In relation to *distal* influences within remote settings of the learner, no engagement role was reported by the SET participants, such as engaging with and navigating national legislations for learners with vision impairment.

Considering the time dimension within the *ecosystem* of the learner, although the SET participants mostly recognised the importance of promoting and developing the [independent] daily living skills of the learner, they mostly conceptualised their roles within a limited time frame within the learner's life (i.e. in the years of primary and secondary schooling). Therefore, this analysis suggested that most of the SET participants perceived their roles as a short-term impact on the learner's *ecosystem*.

(2) How well does the VI teacher training programme prepare VI teachers (SETs) for their proximal and distal influences from the points of the views of stakeholders in Turkey?

In relation to *proximal* influences, this analysis suggested that most of the programme stakeholders believed that the programme provided 'enough' knowledge, understanding and skills regarding teaching and learning activities, particularly in facilitating curriculum access in accordance with the needs of learners with vision impairment. For example, SETs and trainees who responded to the questionnaire rated the programme as higher in terms of preparing them for their roles regarding teaching and learning activities than other areas. Most of the SET participants who participated in interviews also expressed that they gained knowledge and understanding in relation to facilitating curriculum access throughout their pre-service training. However, throughout interviews, some of the SET participants reported that they did not gain

enough specialist *skills* throughout their pre-service training to be able to work effectively with learners with vision impairment, such as teaching braille, assistive technology and mobility.

In contrast to the SET participants, the tutors who participated in interviews reported that the programme provided trainees with knowledge, understanding and skills in relation to their potential *proximal* influences, including teaching mobility and braille. However, they reported some concerns regarding trainees applying the knowledge, understanding and skills in their teaching practice, particularly due to the lack of previous teaching experience among trainees and the lack of recognition of the additional/expanded core curriculum in Turkey.

In relation to *distal* influences, the respondents (i.e. SETs and trainees) reported that they increased their knowledge, understanding and/or skills in relation to partnership working less positively compared to other areas throughout their pre-service training. However, the SETs who participated in interviews mostly reported that they believed their pre-service training provided enough knowledge and understanding regarding 'family training' and how to do raising awareness activities for peers and other teachers in the school setting. Similarly, the tutors stated they believed trainees were provided with enough knowledge and understanding regarding these roles throughout their pre-service training.

These research questions will be answered for the England context in the next chapter, which presents and discusses the findings and analysis from Study-2.

CHAPTER 5

FINDINGS AND ANALYSIS: STUDY-2 (ENGLAND)

Introduction

This chapter presents and discusses the findings of Study-2 (England). The textual data was gathered through interviews with Qualified Teachers of Children and Young People with Vision Impairment (QTVIs) working in different educational settings in England (*n*=13) and tutors involved in the VI teacher training programme at the University of Birmingham in the 2017-18 academic year (*n*=4). This data was analysed using the 'thematic framework analysis approach' (Ritchie, Spencer and O'Connor 2003). The numeric data was gathered through self-completion questionnaires with QTVIs who graduated from the VI teacher training programme at the University of Birmingham (*n*=48) and trainees who were studying in the VI teacher training programme at the University of Birmingham in the 2016-17 academic year in England (*n*=12). The numeric data was analysed using descriptive statistical techniques, including frequency tables and measures of central tendency (means) with the aid of SPSS (version 24). In line with the research aims and the conceptual framework of the study, this chapter presents the following:

- An analysis of the conceptualisation of the roles of VI teachers (i.e. QTVIs) within the *ecosystem* of the learner in England (Section 5.1).
- An examination of the stakeholders' views (i.e. QTVIs and tutors) regarding VI teacher training in England (Section 5.2).
- An analysis of the stakeholder's opinions (i.e. QTVIs and trainees) regarding the VI teacher training programme in England (Section 5.3).

The chapter concludes that this analysis provides a useful insight into how the concept of VI teacher has been constructed in England through examining the stakeholder's views regarding the roles of VI teachers *with* the learner and with people *around* the learner.

5.1. Analysing the role of QTVIs within the *ecosystem* of the learner

This section presents the analysis of the data which was gathered through semi-structured interviews with 13 QTVIs working in different educational settings in England (see work settings of the participants in 'Chapter 3: Methodology'). In line with the theoretical framework of the study, by putting the learner at the centre of this analysis, the participants' conceptualisations of their roles were presented and discussed respectively within the *micro-, meso-, exo-* and *macrosystems* as well as within the scope of the *chronosystem*.

5.1.1. The *microsystem*

The participants' conceptualisations of their roles within the *microsystem* of the learner seemed to differ depending on their job status. For instance, participants working as peripatetic teachers in visiting teachers services (VTS) reported less one-to-one teaching role than those working in only one school setting. However, in relation to teaching and learning activities, the participants conceptualised their roles within the *microsystem* mostly as facilitating curriculum access. For example, two participants described their role in relation to teaching and learning activities as below:

I think the thing that I find most is that whatever you plan you have got to have the right resources that all the pupils can access whatever you are trying to get across so **it is adapting material all the time whether it putting into braille, into large print, simplifying it for children who have got additional learning difficulties. So it is trying to get plenty of differentiated materials so that everybody can access what you…teach them**. (QTVI-1 / SS)
If they are learning about the digestive system, we would actually have a model, **a physical model of the digestive system where they can feel the shape of the whole** and where this fits on the stomach where this fits in where the small intestine fits in. (QTVI-2 / SS)

A few participants (including those working as peripatetic teachers) reported that they enabled access to the curriculum through providing materials in accordance with the needs of learners by using such materials in the teaching and learning process. For example, a participant working as a peripatetic teacher reported their role as follows:

> I have...lots of time spending with teaching is for a child I see weekly…who has just started to use braille so **I am teaching him how to read braille and hand positioning**. He is very good at remembering the numbers for each letters and he is good at typing but he is struggling to read braille. (QTVI-9 / VTS)

Besides these roles, this analysis suggested that the participants mostly conceptualised their roles within the *microsystem* as promoting and developing the independence of the learner. For example, two participants described their roles as follows:

> I am not here just to be a language teacher or an English teacher. **I am trying to teach other skills to children with visual impairments such as independence** […] **helping them to prepare better for the next stage of the life and beyond.** (QTVI-5 / SS)

> **I have introduced a great *deal* of focus on the independent living skills.** Every week we have a lunch club for junior students who come up in their lunch time and practice their spreading, their cutting, their using the cutlery and all those skills **which are just as important as their academic progress.** (QTVI-12 / MS)

Although participants mostly highlighted the importance of developing and promoting the independence of the learner, it appeared that the notion of independence was conceptualised by participants in a variety of ways. For example, one participant highlighted the importance of self-advocacy skills through encouraging the learner to have a voice for themselves to promote their own independence, saying this:

> Because what we want to **encourage them to do is to feel comfortable and talking about their own eye conditions and their own needs and understanding their own needs so that they can have those conversations if they need to in their new setting.** Because they are always going to be meeting new people and don't actually quite understand what is helpful for them so **it is becoming your own good advocate** it is the way to go. (QTVI-7 / VTS)

As another example, one participant who was responsible for teaching Information and Communications Technology (ICT) skills in a school reported their role within the school setting, saying this:

> Because communication is so important for the blind and visually impaired child, we don't just teach the national curriculum. **We don't just teach what it is needed for an ICT and computing qualification. We also teach them access to ICT and the ICT they would meet when they go into the world.** So it is like keyboarding skills. (QTVI-6 / SS)

In relation to promoting and developing independence, no participant reported a direct role of teaching mobility within the school setting(s). Nevertheless, one participant reported that they provided learners with skills in order for them to navigate in the school as part of promoting and developing their independence, as below:

> I would expect them [students] to know how to go and get a calculator [from the] cupboard. **So at the beginning of the year we do a tour *of* the classroom – this is where you are going to sit, this is where it is in relation to the door, this is where the banister is.** […] so we spend a couple of days maybe it is just saying [this]. (QTVI-4 / SS)

In line with this, this analysis suggested that developing and promoting the independence of the learner was understood in various ways. Accordingly, as summarised in Table 5.1, the role relating to promoting and developing the independence of the learner was reported as 'developing their self-advocacy skills'; 'enabling learners to improve their independent living skills'; 'teaching them how to move independently in the school setting' and 'teaching ICT skills'. Additionally, although no participant reported any teaching role within the home setting, participants working as peripatetic teachers defined their roles within the home setting as assessing the needs of the child.

Consequently, as summarised in Table 5.1, QTVI participants mostly conceptualised their roles within the inner setting of the learner in which the learner actively participated as a student as (1) promoting and developing the independence of the learner and (2) facilitating access to the curriculum.

Immediate setting	Roles of participants *with* the learner
Home	• Assessing the needs of the child
School	• Promoting and developing the independence of the learner, including: - Developing self-advocacy skills - Enabling learners to improve their independent living skills - Teaching how to move independently in the school - Teaching ICT skills • Facilitating access to the curriculum, including: - Using differentiated materials in the teaching and learning process (including tactile, haptic and enlarged materials) - Teaching braille (including pre-braille skills)

Table 5.1 Summary of participants' conceptualisations of their roles within the *microsystem*

5.1.2. The *mesosystem*

Participants' views about their partnership roles with families and other professionals were examined in order to gain an insight into potential multi-setting interrelations developed by VI teachers among major settings of the learner (e.g. between school and home). The views of participants were analysed in relation to the following four types of interconnections within the *mesosystem* (Bronfenbrenner, 1979):

- Multi-setting participation
- Indirect linkage
- Inter-setting communication
- Inter-setting knowledge.

5.1.2.1. *Multi-setting participation*

As noted in the previous chapter, Bronfenbrenner (1979) mentions two types of links within the scope of the 'multi-setting participation' type of interconnection within the *mesosystem* (i.e. *primary* links and *supplementary* links). In line with this, it seemed that a few participants had

influence within the *mesosystem* of the learner through establishing *primary* links between settings. For example, one participant reported their role for the transition process, as below:

> [We are] making connections with our independence career people […] and **we arrange visits to the colleges for [6th] form [aged 16+] students.** (QTVI-4 / SS)

Besides *primary* links, it seemed that a few participants had influence within the *mesosystem* of the learner through establishing *supplementary* links between major settings. For example, a few participants with peripatetic roles reported their roles within the home setting as providing information for families regarding needs of the child (see below).

> I go into homes, I go into primary school, secondary schools, and I also go into schools with resource bases [...] **in the home, it is very much around working with parents to support them in or understanding, I mean, it is process of raising parents' awareness of their child's visual impairment.** (QTVI-8 / VTC)

It seemed that *supplementary* links were not only reported as visiting home settings; but also reported as using video in order to develop and promote the learner within the home setting. As previously stated (see 'Chapter 4'), video can be considered as a virtual tool that enables teachers to engage in home setting. In line with this, the two participant statements below were considered as *supplementary* links between home and school settings:

> [While working in a VI specialist school] it was very important for us to *continue* particularly with the [independent] life skills, the families, parents, carers carry on the life skills at home. So **we developed sorts of series of 'how to videos'** – you know, how to make a cup of tea, how to make a meal – **the parents could use and that they can continue [at home].** (QTVI-10 / MS)

> If they [families] are gonna teach them [ILS] in a different way… so my parents need to see that…teaching the same method. So actually **we use Tapestry –** it is a bit like educational Facebook – as each student has an account, which only the parents can see. **We put photographs, videos, comments on what student's doing so parents can see them at home and also, parents can put photos on what the child is doing at home so we can talk to them about the child**. (QTVI-12 / MS)

Accordingly, as summarised in Table 5.2, these two participants' statements were considered as *supplementary* links established by VI teachers between home and school settings in order to promote and develop the independence of the learner.

5.1.2.2. *Indirect linkage*

As noted in the previous chapter, Bronfenbrenner (1979) explains *indirect linkage* as a connection established by a third person who operates as an *intermediate* link between the two settings (p.210). Accordingly, it seemed some participants' conceptualisations of their roles could be considered as establishing *intermediate* links between two settings. For example, a participant reported that:

> He [the child] recently went blind due to trauma, so he did have sight up until two and a half years of age – so parents are very new to this. They are very anxious because he has just started the school and obviously they want the best for him. So obviously in that aspect, **it is more reassuring role and signposting them where to go to get external support, like extra funding for maybe a Perkins brailler in the home.** (QTVI-13 / VTS)

Similarly, another participant reported that she signposted families and learners to external sources in accordance with the needs of the learner, saying this:

> Technology is always changing. So although I am not very technically confident myself, that… isn't worry too much because **I can always signpost the young person or the family to someone who is…** […] the principles remain the same. It is just what is right for each different person. […] The habilitation and mobility service, you know, again **we will be signposting the child to them so it is lots of signposting depending on what is needed next for that child and for that family**. (QTVI-7 / VTS)

Accordingly, as summarised in Table 5.2, this analysis suggested that participants established some *intermediate* links through signposting families to external sources in accordance with the needs of the learner.

5.1.2.3. *Inter-setting communication*

As previously noted in 'Chapter 4', Bronfenbrenner (1979) highlights that the messages need to be conveyed 'with the express intent of providing specific information to persons in the other setting' (p.210) in order to establish inter-setting communication within the *mesosystem*. In line with this, it seemed that participants working as peripatetic teachers developed some inter-setting communication through collaborating with a range of professionals inside and outside the school setting, such as early years support teachers, special educational needs

coordinators/SENCos, teaching assistants/TAs, educational psychologists and sensory support teams. For instance, one participant stated that:

> We are trying to **inform the key people working with that young person whoever they are.** So they are teachers, TAs, other people, the dinner lady in the school… wider community. (QTVI-7 / VTS)

Some participants working as peripatetic teachers also reported that they do functional vision assessments and provide information and advice for the learner and teachers about the needs of the learner. For example, two participants expressed that:

> Part of the job when we are in schools, what actually we do is **to undertake functional vision assessments and this is a key part of our job** […] advise on actually what the child can see and what they can't see and how to help. **So it is all about giving those strategies based on how they are dealing with things day to day.** (QTVI-11 / VTS)

> We need to work with teachers **to understand how that [vision impairment] is a barrier and then take away the barriers to learning.** [...] So with… that sort of working with the teachers to directly take away the barriers. (QTVI-8 / VTS)

It also appeared that a number of participants conceptualised their roles as providing advice for other professionals working with the learner in order for them to promote and develop the independence of learner. For example, one participant stated that:

> [Saying to other teachers and TAs] **'you shouldn't have done that, you should have said this is how you learn'**, or when you see someone who has got a laptop and the TA is plugging in it for them, you know, **'no, no… don't do it'.** (QTVI-9 / VTS)

Bronfenbrenner (1979) also highlights that the communication through inter-setting communication may occur one-sided or in both directions. In line with this, it appeared that some participants' communications with other professionals could be considered as a communication which occurred in both directions within the *mesosystem* of the learner. For example, one participant reported her collaborative role with a braille teacher in the school, saying that:

> The braille teacher will communicate with us what level of braille the pupils are at. **As a collective staff, we have discussions on whether or not pupils should be moved on to braille or should have a go at learning Moon depending on their learning and their visual needs. (**QTVI-2 / SS)

This analysis also suggested that inter-setting communication was developed by the participants not only with other professionals/staff but also with families. For example, a number of participants reported their roles as advising families to promote and develop the independence of the child at home, as the following statements illustrate:

I have **a role in helping them [families] engage with the students' learning** […] getting them to do lots of independence work which students can do at home. Because **I can really tell those parents to do lots of great things in weekends and holidays… [For example] let them work in kitchen.** (QTVI-12 / MS)
When we did have meetings with parents it was sort of **saying – right, we want to carry on practising this. So your target when you are at home with your children is to make sure they are using their cane all the time, they do let them go to places independently if they are comfortable.** (QTVI-10 / MS)

It also seemed that the 'direct message' from the participants to families was not only conveyed through verbal communication, but also through written forms of communication. For example, one participant reported that she provided families with a developmental journal in order to develop and promote the independence of their children at home:

I use quite a lot the *developmental* journal to help sort of work with parents to give them ideas of activities to help play and development. (QTVI-8 / VTS)

Accordingly, as summarised in Table 5.2, this analysis suggested that inter-setting communications between major settings of the learner were established by the participants with other professionals and families (through verbal and written forms of communications) in particular for the purpose of developing and promoting the independence of learners.

5.1.2.4. *Inter-setting knowledge*

As previously noted in 'Chapter 4', 'inter-setting knowledge' refers to information or experience that exists in one setting about the other setting within the *mesosystem*, which can be obtained through a variety of sources (Bronfenbrenner, 1979). In line with this, this analysis suggested that a number of participants developed some form of inter-setting knowledge for learners between two settings. For example, some of the participants working as peripatetic

teachers reported that they arranged visits for the potential next educational setting. This was assumed that this could provide some sort of inter-setting knowledge for the learner. Therefore, as summarised in Table 5.2, this was considered as an inter-setting knowledge type of interconnection, which occurred within the *mesosystem* of the learner.

Consequently, as summarised in Table 5.2, this analysis suggested that participants mostly conceptualised their roles within the *mesosystem* as developing communications with families and other professionals particularly in order to promote and develop the independence of learners through establishing a variety of interconnections between major settings (e.g. home and school).

Major settings of the learner	Roles of participants
Home – School **School – Other setting(s)** (*primary* and *supplementary* links)	• Arranging visits for learners to next potential educational settings • Using a video-based guidance for families • Using a social media tool to network with families • Advising families about the needs of the child through home visits
Home – Other setting(s) (*intermediate* links)	• Signposting families to external sources to get additional support (e.g. in relation to braille, mobility, assistive technology)
Home – School **School – Other setting(s)** *(inter-setting communications)*	• Providing information, advice and guidance for families in order to develop and promote the independence of the learner: – Through a developmental journal – Meeting with families for annual EHCP meetings at school • Providing information, advice and guidance for other professionals in order to: – inform about the needs of the child (sometimes through carrying out functional vision assessments) – provide advice and guidance in order to reduce the barriers to participation (e.g. advising classroom setting) – promote independent learning of the learner
School – Other setting(s) *(inter-setting knowledge)*	• Giving information to the learner about the next educational setting

Table 5.2 Summary of participants' conceptualisations of their roles within the *mesosystem*

5.1.3. The *exosystem*

In order to gain an insight into the interconnections developed by VI teachers within the *exosystem*, the participants were asked whether they arranged any activity in school(s) in order to raise awareness of vision impairment among peers and other teachers/staff. In particular, the participants working as peripatetic teachers reported that they carried out a number of activities in order to raise awareness in school(s). For instance, one participant stated that:

> [After hearing bullying issues in that school] I go into that… I do specifically albinism which is, you know, where you **show some of the pictures – [saying] there is a diamond it is very rare.** And then we **show all the pictures and animals with albinism and then people with [albinism], all of them fabulous, and top models with albinism.** (QTVI-9 / VTS)

It appeared that this participant aimed to develop positive attitudes towards vision impairments through raising awareness among peers. Another participant working as a peripatetic teacher reported that she used VI simulations in order to raise awareness among peers, saying that:

> …with the permission and collaboration of the young person [who] you are supporting in the class. It is an opportunity to **go and talk to their classmates about the visual needs of the young person with vision impairment.** And **to talk about and put on simulated spectacles perhaps take away some vision and saying – 'what do you think would be helpful?'** And [saying] **'that's why I come in and help whoever it might be just to make sure they can see everything as well as you can'.** (QTVI-7 / VTS)

While participants with peripatetic roles reported carrying out activities in order to raise awareness, participants working in VI specialist schools did not report any role in raising awareness of other people in which the school they worked. Nevertheless, a few of those participants reported that they did some activities in other schools, such as organising peer workshops for peers in mainstream settings. For example, one participant stated that:

> I, myself, go into a local primary [mainstream] school and **talk through with the pupils of how a visually impaired learner would access.** […] Just try that **experience of what it is like to be a visually impaired learner**. And then also they got really excited with the braille so I got them **to compare Harry Potter [in braille and in printed formats]** because I had been reading a Harry Potter book in the class. (QTVI-2 / SS)

The participants working as peripatetic teachers also conceptualised their roles as providing awareness training for teachers/staff in order them to have an understanding about vision impairments. For example, one participant who had a peripatetic role stated that:

> We offer visual impairment training to mainstream schools at our offices. […] Basically, those training sessions are **all about raising awareness for visual impairment, making sure the schools understand different types of visual impairment, making sure they understand how to approach a child who has got a visual impairment – what do I need to do, what modifications do I need to do, what reasonable adjustments do they need to make.** (QTVI-13 / VTS)

The participants were also asked about their roles in relation to developing curriculum policy in order to gain more insights into how they conceptualised their roles within the *exosystem*. Two participants working in specialist school settings (who were also qualified and practicing as maths teachers in a VI specialist school) reported how they developed the national maths curriculum in accordance with the needs of learners with vision impairment (see below):

> We have to do a lot of work on the curriculum because a lot of things have changed on the Key Stage-3. […] So we had to **go through each of the statements of attainment and look at it a fresh [and] broke it down into more manageable segments.** And also **we looked at it from a visually impaired point of view – how can we make it more relevant to our children who are visually impaired?** (QTVI-3 / SS)

> …some of the maths curriculum… a child at year-5 will be able to do two, four and seven times tables. Well, that's too big for our children to achieve. So, you know, the child will able to do two times tables with one statement, the child will able to do four times tables as a separate statement. So **we modify what the Government expects us to do** – yes, that was a huge piece of work. (QTVI-4 / SS)

Consequently, as summarised in Table 5.3, participants' conceptualisation of their roles at the *exosystem* level (i.e. their external influences within the immediate setting) can be broadly summarised as: (1) arranging activities to raise awareness of VI among peers; (2) arranging training sessions for teachers/ staff about VI; and (3) modifying the national curriculum in accordance with the needs of learners.

External influences within immediate setting(s) of the learner
• Arranging activities to raise awareness of VI among peers, including: - Organising peer workshops - Providing information about VI - Developing positive attitudes towards VI - Using VI simulations in the class - Explaining the role of peripatetic teachers • Arranging training sessions for teachers/staff about VI – Providing information about VI to improve support at the school • Modifying the national curriculum in accordance with the needs of learners with VI (e.g. modifying attainments, assessment procedures)

Table 5.3 Summary of participants' conceptualisations of their roles within the *exosystem*

5.1.4. The *macrosystem*

McLinden et al. (2016; 2017b) state that the distinctive role of VI teachers within the *macrosystem* is to engage with, and navigate, distal influences, such as national legislation and policy that relate to learners with vision impairment. In line with this, it appeared that no participant reported any engagement role within *macrosystems* in England. It also appeared that the participant did not report any influence of the implicit form of the *macrosystem* on their roles. Nevertheless, one participant's view about other people's approaches to the role of QTVIs provided an insight into some implicit and explicit forms of the *macrosystem* in England, as below:

> I think the deceptive thing is in England… when we had the news about **SEND reforms 3 years ago. It is actually in law…says about children with vision impairment having access to a QTVI** […] actually [people] forget that we have mandatory qualifications […] try to **raising awareness of vision impairment…**and **it is not just for kids wearing glasses … the big area that I think people don't understand is actually the cortical vision impairments.** They don't see because it is brain visual impairment so sometimes they don't refer to us either. **So, yes we have to try to do more raising awareness and trying to spread the people saying 'we are here, this is what we do'**. (QTVI-11 / VTS)

It seemed that although the role of QTVIs was 'clear' within the explicit form of the *macrosystem* of the learner (i.e. laws, codes of practice), the understanding of society towards their distinctive roles were sometimes 'unclear' in the implicit form of the *macrosystem* (i.e.

society's mind). Consequently, while the participants did not report any engagement role within the *macrosystem*, such as engaging with SEN legislation, one participant's view illustrated the influence of some explicit and implicit forms of the *macrosystem* on the distinctive roles of QTVIs. In line with this, this analysis suggested that the distinctive role of VI teachers in England at the *macrosystem* level might be to navigate *distal* influences through raising awareness among other people about the specialist role of QTVIs.

5.1.5. The *chronosystem*

To gain holistic insight into the conceptualisations of QTVI participants regarding their roles within and between different layers of the *ecosystem* of the learner, the conceptualisations of their roles within and between *micro-*, *meso-*, *exo-* and *macrosystems* were re-examined through a consideration of the *time* element. McLinden et al. (2017b) define the distinctive role of VI teachers within the scope of the *chronosystem* as 'to support the development of distinctive skills [of the learner] in order to afford independent learning' (p.579). In line with this, a number of roles that the participants reported were considered within the scope of the *chronosystem*. For example, two participants explained their roles in relation to developing the independent learning skills of learners, as below:

...we don't just teach the national curriculum. We don't just teach what is needed for an ICT and computing qualification**. We also teach them in access to ICT and the ICT they would meet when they go into the world.** So it is like keyboarding skills. (QTVI-6 / SS)
I am very much about improving the independence of the child. Moving away, even in primary school, from them getting enlargements made for them and traditionally huge CCTV in classrooms – the children don't like it! **The iPad pro I am a big fan of, because you can get a screen share of what information is on the teacher's computer**. […] On the iPad pro, there is a function on their PDF so they can write on top of it, and they have a stylus pen so they can write on it [their] preferred large size [not clear] I just find it is fantastic! (QTVI-9 / VTS)

It appeared that QTVI participants mostly conceptualised their roles in relation to developing independent learning skills in particular to technology. As McLinden et al. (2017b) state, teaching a new technology can be considered as one of the strategies for VI teachers to

encourage ‘gradual reduction of direct support’ (p.580). Another participant, for example, expressed how she encouraged a year-6 pupil to develop his independent learning skills, saying that:

> Obviously, **we have got to try to develop this year his [the pupil’s] independent learning skills** for him to be able to use them when he is in secondary school. Because he won’t be able to rely on his teaching assistant support as much in secondary school. […] So things… little things… like **making sure that he charges his laptop, he charges his braille note-taker, making sure that he actually gets it out from his storage and brings to his desk and sets it up**. (QTVI-13 / VTS)

Accordingly, it seemed that the participants conceptualised their roles in relation to promoting and developing the independence of the learner through different strategies. Consequently, considering the *chronosystem* of the learner, this analysis suggested that some interaction between QTVIs and learners within the immediate environment might have a long-term impact throughout the learner’s lifespan, such as encouraging the learner to develop their independent learning skills.

Summary

To gain an insight into *proximal* and distal influences established by QTVIs within and between the different layers of the learner’s *ecosystem*, semi-structured interviews with 13 QTVIs in England were analysed using Bronfenbrenner’s theoretical approaches towards human development as a conceptual lens. Accordingly, *proximal* influences that were developed by QTVIs were mainly reported as ‘promoting and developing independence’ (e.g. developing self-advocate skills, teaching ICT skills) and ‘facilitating access to the curriculum’ (e.g. teaching braille). Since QTVI participants mostly conceptualised their roles as developing and promoting the independence of learners, it seemed that they mostly conceptualised their roles within a broad time context within the learner’s life span.

In terms of *distal* influences, the participants reported their roles mainly as establishing interrelations between home and school settings through *primary* and *supplementary intermediate links* and *inter-setting communications* (e.g. signposting families to external sources to get additional support, advising families to promote and develop their child's independence at home). They also expressed their roles as modifying the national curriculum and arranging VI awareness training for teachers and other staff (those roles were assumed as shaping distal influences that affect the learner's *microsystems*). However, the participants did not report any engagement role at the *macrosystem* of the learner in England.

Consequently, by using Bronfenbrenner's theories of human development as a conceptual framework, this analysis highlighted the significant function of the VI teacher on the development of the learner by illustrating the range of roles of QTVIs with learners, families, teachers and other professionals (e.g. TAs, career officers, SENCos) within the *ecosystem* of the learner. In line with this, the next section discusses how the VI teacher training programme in England prepares VI teachers for such roles (both at *proximal* and *distal* levels) from the points of the view of programme stakeholders (i.e. QTVIs and tutors).

5.2. Analysing stakeholders' views regarding VI teacher training in England

The previous section illustrated the analysis of the conceptualisations of QTVI participants regarding their roles within and between different layers of the *ecosystem* of the learner. In line with this, this section presents the analysis of the views of the programme stakeholders (i.e. QTVIs and tutors) regarding the VI teacher training in England. In line with the theoretical framework of the study, it presents the findings of Study-2 as follows:

- An analysis of the views of QTVIs participants regarding their VI teacher training (in line with their *proximal* and *distal* influences).

- An analysis of tutors' views regarding VI teacher training in England (considering the distinctive role of VI teachers within and between inner and remote systems of the learner).

5.2.1. Examining the views of QTVIs regarding their training through interviews

The previous section illustrated the analysis of the conceptualisations of the role of 13 QTVI participants within and between different layers of the *ecosystem* of the learner. This section discusses the views of these participants regarding their MQ training (i.e. VI teacher training) in relation to their (1) *proximal* influences (i.e. role *with* the learner) and (2) *distal* influences (i.e. role with people *around* the learner) within the *ecosystem* of the learner.

5.2.1.1. *Proximal* influences

In line with the conceptualised roles of QTVI participants within the immediate environment, the views of 13 participants about how they were prepared for those roles during their MQ training were presented under the following two themes according to the 'conceptual scaffolding' of the thematic framework analysis (explained in 'Chapter 3: Methodology'):

- Facilitating curriculum access
- Developing and promoting independence

Facilitating curriculum access

As stated in the previous section, some of the participants conceptualised their roles as facilitating curriculum access within the school setting(s) (see 'Section 5.1.1'). In relation to developing their teaching skills, a number of participants reported that they already had teaching skills as a teacher. Therefore, it seemed that these participants did not believe their MQ training enabled them to improve their teaching skills; however, they believed that their training provided them with knowledge and understanding in relation to the distinctive needs of learners with vision impairment. For example, one participant stated that:

> I think it [the programme] really prepares you for your role and **if you have already got experience, it is sort of gives you that theory base. If you have not got the experience, it is sort of using theory to be able to put into sort of develop the practice from the theory. I do think it has two sides**. […] [Also] it makes you think…with the teaching and learning…meeting the educational needs of children, which is module 3. That was good because **it made me think about my teaching and then the teaching practice made me think, why do I do this, why do I do that?** (QTVI-5 / SS)

With respect to facilitating curriculum access, throughout interviews some participants were prompted to share their views about their MQ training particularly regarding learning braille in line with their current and/or previous teaching roles. Besides the MQ training, the importance of having *experience* in teaching braille in order to be competent (and remain competent) in teaching was highlighted by a number of participants. For example, one participant expressed that:

> The learning braille [in the course] has obviously been very very important. I have not said that I learnt braille three times […] because if you are not using it, you lose it, like everything else. **So I might be A-level braillist when I first finished the course but you are only as good as the amount of teaching that you are doing with something like that.** (QTVI-7 / VTS)

It appeared that participants mostly believed that their MQ training provided them with knowledge and understanding in relation to braille. However, some participants provided suggestions for the VI teacher training programme in relation to teaching literacy through braille. For example, one participant specifically highlighted that the programme should focus on preparing trainees to *teach* braille, as below:

> I think one of the biggest things for me, and it might be different now, **if the expectation is that you will teach someone to learn to read and write braille, you need to be taught how to do that.** I was taught that by someone in my existing placement, I wasn't taught that on the course. I think it is very important. (QTVI-10 / MS)

Similarly, two participants provided a number of suggestions for the programme in relation to braille. One of them highlighted the importance of technology, saying these:

> **I have a feeling that I might be less certain about the value of braille as part of the course. Because I think braille is something that is important but not essential for teaching that we are doing in the school. Because time goes on, there will be people listening to stuff. People don't read braille books now, they listen to audio books.** Things like that. […] It is just my opinion. (QTVI-6 / SS)

Another participant highlighted that braille is not the only alternative route for learners with vision impairment. He emphasised the necessity of competencies of VI teachers in teaching Moon to learners with vision impairment and complex needs, saying this:

> Braillist…that is a very very small population of pupils in the UK and **actually most teachers never meet a braillist in their teaching career.** […] So I think one of the issues *with* the QTVI course is that **it prepares people to work with braillists but lots of people do it and say – I am not working with braillists. Or they may be working with kids with more complex needs. […] if I suddenly work with students in Moon, I have no experience in Moon.** (QTVI-12 / MS)

Consequently, this analysis suggested that most of the participants believed that their MQ training enabled them to increase their learning in relation to facilitating curriculum access in accordance with the distinctive needs of learners with vision impairment. However, more specifically, some participants believed that the MQ training might offer some arrangements in relation to providing trainees with knowledge, understanding and skills in relation to teaching literacy to learners with vision impairment. The suggestions that were proposed by some of the participants can be summarised as follows:

- MQ training might focus more upon teaching trainees how to *teach* braille in addition to providing them with knowledge, understanding and skills regarding braille.
- Besides teaching braille to trainees, MQ training might also focus upon teaching how to teach literacy using technology.
- MQ training might focus upon providing trainees with enough skills in teaching alternative routes to literacy for learners with additional or complex needs (e.g. Moon).

Developing and promoting independence

As participants expressed their roles within the *microsystem* level, they also shared their views about their MQ training in relation to developing and promoting the independence of learners. It seemed that they mostly believed that their training provided them with general knowledge and understanding relating to developing and promoting learners' independent living skills.

Although no participant reported any direct role in teaching mobility, this analysis suggested that they believed their training enabled them to understand the needs of learners with vision impairment regarding mobility and independence. For example, one participant reported that having knowledge and understanding regarding learners' independent living skills during MQ training was useful for improving their teaching practice in other areas, saying this:

> **Sighted guides, independent living skills, pouring, using equipment safely** […] **transferring into science**, so if I know their mobility, they can pour a cold drink, I know they can pour acid or alcohol so they can pour chemicals. So it is the same skill, so **it was quite helpful and useful transferring a living skill into a subject skill.** (QTVI-2 / SS)

As stated in the previous section, some participants conceptualised one of their roles *with* the learner in relation to promoting and developing independence as providing learners with advice to develop their self-advocacy skills. For example, one participant reported that:

> I think one thing that made me sit up and take notice… was a session [which] was about self-advocacy […] **basically, you write a scenario [putting yourself as] the child himself.** [For example], I have a visual impairment, I have got…Rod-Cone dystrophy…*what happens this*…how you can help me…**That for me was really helpful. It was a piece of advocacy that I just have come across before… and actually, it really can be resonated what we do.** (QTVI-4 / SS)

In relation to developing social skills, most of the participants expressed that their MQ training was useful for them to gain an understanding about the social and emotional needs of learners. However, a few participants suggested that MQ training should focus more upon developing learners' social and emotional needs. For example, one participant stated that:

> I do remember that one of the sections that was lacking that I felt that was lacking…that was about social and emotional needs of the young person, which are huge, but it was the part of the course in comparison to other units it was really condensed and not as in depth. And **I think I have learnt a lot more being with the young people since than I did on the course.** (QTVI-1 / SS)

Although participants' views differed from each other, it seemed that they mostly believed that they gained some sort of awareness about social and emotional needs of learners through one specific module in the programme. Consequently, this analysis suggested that QTVI participants commonly believed that their knowledge and understanding gained throughout

their MQ training had been useful to develop and promote the independence of learners. Only one suggestion, which was proposed for the programme, was a more condensed training on developing/improving social and emotional needs of learners with vision impairment.

5.2.1.2. *Distal* influences

As the previous section illustrated, QTVI participants mostly conceptualised their roles with people *around* the learner (i.e. *distal* influences) through establishing interrelations between home and school/other settings (e.g. advising families to promote and develop the independence of the child at home) as well as developing some of the external influences that have an effect within the learner's *microsystems* (e.g. modifying the national curriculum). Accordingly, the views of participants about how they were prepared for their roles during their MQ training were presented under the following two themes according the 'conceptual scaffolding' of the thematic framework analysis (see 'Chapter 3: Methodology'):

- Partnership role with families
- Collaborating with other professionals

Partnership role with families

In line with the conceptualisations of participants regarding their roles with families, it seemed that a number of participants believed that their MQ training did not provide them with skills in relation to their advisory roles. A few of the participants, for example, reported that they did not gain enough skills in relation to their advisory roles for families throughout their MQ training. For example, two participants stated that:

I think I have felt confident with working with families because of where I worked – not because of necessarily what my training had given me. In fact, it is very long time, I can't really, I'm sure, it is different now, but I can't really remember a lot of modules about partnership working with parents, or raising awareness with parents or giving parents confidence. (QTVI-10 / MS)
I think we had a little bit on the course. I know we had certain modules that were talking about pupils' emotional responses. **I am not sure whether it gave us enough about actually how to do with that and support the families.** (QTVI-11 / VTS)

Nevertheless, it seemed that although some of the participants believed that the MQ training did not provide them with skills in relation to their advisory roles for families, they believed that their training indirectly had an impact on their advisory roles. For example, two participants reported that:

I think advisory is… the course didn't do it. […] In terms of the advisory role, I think that builds through experiences, really. **The actual course gives you information on that this is how you use that information.** (QTVI-8 / VTS)
It [MQ training] was more to do with medical things like the structure of the eye, different types of visual impairments and the impact on the pupil's education, what they can see, what they can't see that type of things. **From the advisory point it was not a lot.** […] Generally speaking, the whole idea of visual impairment, the medical aspect, the sight aspect. **I think that needs to be covered whatever you do. Because that's the foundation of why you are doing everything else, isn't it?** (QTVI-3 / SS)

More specifically, another participant expressed that online enquiry-based learning activities were useful particularly for their partnership roles with families, saying that:

There was a lot of case study exercise where we *were* given a situation and then we had a sort of problem solving and I find the online exercises were very valuable. […] I think it was really good because again all the case studies [not clear] looking at things and different angles working within a group. (QTVI-9 / VTS)

Consequently, this analysis suggested that QTVI participants mostly believed that their MQ training did not explicitly provide them with skills in relation to providing advice for families. However, it seemed that they largely believed that their MQ training was helpful for preparing them for their advisory role for families. More specifically, providing specialist knowledge in relation to vision and vision impairments and gaining problem solving skills through online case study activities were mostly highlighted by the participants as useful aspects of the programme for their partnership roles with families.

Collaborating with other professionals

Similar to advisory roles with families, it seemed that most of the participants believed that their MQ training helped them with their collaborative roles with other professionals through providing them with knowledge and understanding in a variety of areas. For instance, one participant reported that:

> **[Learning] pre-braille for instance…that's been really really important and helpful.** Because you have got pre-braille skills in place you can… I mean you can start those very early on with families in the role that I am doing now. But **we also take those into schools, into nurseries and share those with teachers.** (QTVI-7 / VTS)

A number of participants reported that having knowledge and understanding regarding vision and vision impairments was useful in order for them to provide advice to other professionals about the needs of the learner, as below:

> A lot of useful things in the way that we were trained to understand […] you can feel that experience what it feels like, even though it is not real, because **you can take the blindfold off or you can take the low vision glass off but it just gives you an idea. It is really powerful rather than saying this child needs this. It is helping you to understand why and what makes a difference.** (QTVI-9 / VTS)

> Within the school, it wasn't so important to know about the children's actual diagnoses at that time. I didn't know many of the children's actual eye conditions, what they were. So **being a classroom teacher and for the role that I now do which is advisory visiting teacher, going into lots of different situations.** (QTVI-7 / VTS)

Besides participants working as peripatetic teachers within different educational settings, other participants also reported that their MQ training was useful in preparing them for their roles in collaborating with other professionals. For example, one participant stated that:

> **Mobility skills as well. That was really helpful.** […] A role as a form tutor, **so I can talk to parents and support the mobility team** – they can pour cold drinks or they can pour hot drinks or make a simple snack. (QTVI-2 / SS)

Consequently, although most of participants believed that their MQ training did not provide them with particular skills in relation to their partnership roles, they commonly believed that their MQ training was effective for such roles. More specifically, this analysis suggested that gaining specialist knowledge and understanding regarding vision and vision impairments was

viewed as useful by most of the participants for their collaborative roles with other professionals.

5.2.2. Examining the views of tutors regarding the VI teacher training in England

As stated in 'Chapter 3: Methodology', the views of tutors involved in the VI teacher training programme in England were gathered through unstructured interviews. In line with the research aims, this section presents and discusses the views of four tutors regarding the VI teacher training programme (i.e. MQ training programme) by considering the role of VI teachers within and between *proximal* and *distal* systems of the learner.

5.2.2.1. Preparation for *proximal* influences

The tutors were asked to express their views regarding the programme in terms of preparing trainees for their teaching roles. It seemed that they believed the programme provided knowledge, understanding and skills in teaching roles through a variety of techniques. For example, one tutor reported that the programme provided trainees with knowledge, understanding and skills through teaching placements in a range of settings, as below:

> Module-3 is very much about curriculum and curriculum access and Module-6 **when they have done their teaching placements then they can experience and write about their teaching experiences.** […] They have to write an assignment about **how they enabled curriculum access for pupils [in their teaching placement] so that would include teaching braille, etc.** (Tutor-1E)

Similarly, another tutor emphasised the importance of residential weekends that were provided for trainees twice in a year throughout their training for such roles. More specifically, with respect to teaching literacy, one tutor reported that the programme not only aimed to provide trainees with enough knowledge, understanding and skills to teach braille, but also to select the appropriate literacy medium in accordance with the needs of learners (including Moon). She also expressed that the programme aimed to encourage trainees to have a positive view of braille in order that the learners would view it positively, saying this:

> **One of the things [in the programme] is trying to strengthen a positive view of braille** because what happen is most people find it difficult to learn braille themselves. Then, [they may think] this is so difficult thing to learn, you know, which is absolutely the wrong message you want to give the kids. (Tutor-4E)

In general, tutors reported that the programme aimed to provide trainees with knowledge, understanding and skills relating to their teaching roles. However, it seemed that the programme focused slightly less on providing trainees with skills for their teaching roles compared to their advisory roles (i.e. a *distal* focus – see next section). For instance, one tutor stated that:

> There are such different roles that teachers who come to this course. So for example, if they are working as an advisory teacher, that's a completely different role to working as a classroom teacher in a special school for blind children. **But I suppose that the majority of, I think the course now assumes that [the] majority of people coming on it do working and advisory, they work in services than working in special schools. So they are doing more advice than direct teaching.** (Tutor-3E)

This also might be related to trainees' previous teaching experience. Since the VI teacher training programme accepts trainees who already have teaching experience as a teacher (for more information see 'Chapter 2: Literature Review'), it might be reasonable that teaching roles of VI teachers was not a central concern of the programme. In line with this, it seemed that the programme aimed to enable trainees to understand their distinctive roles within the *proximal* system of the learner in a broader context. For example, one tutor emphasised that the programme prepared trainees to think that their job was not only to provide curriculum access for learners with vision impairments but also to provide the learner with confidence so that they can develop their own independence.

Some tutors also reported that the programme aimed to enable trainees to have an understanding of their distinctive roles as 'agents of change' in line with the MQ outcomes (see 'Chapter 2: Literature Review' for more details). In terms of preparing trainees for their distinctive roles *with* the learner (i.e. *proximal* influences), this analysis, for example, suggested that the approach of the programme towards developing and promoting the independence of learners

focuses particularly upon developing the self-advocacy skills of learners. For example, one tutor expressed the importance of having 'a voice' for the child, saying this:

> The notion of the specialist teacher as agents of change, I think it is an important one because **it is about supporting the child to give them agency so they feel they have got a voice**. […] I think a lot of teachers' role is about **empowering the child to take control of their own future, giving them [independent] skills so they can generally feel that they can help to shape their own future not relying on other people.** (Tutor-2E)

The role of VI teachers is also conceptualised within the *proximal* system of the learner as providing information to the learner and involving them in the decision-making process. For example, one tutor stated this:

> **It is making sure that the child is involved in all conversations and they can only be involved in conversations if they have the relevant information.** […] **Part of the QTVIs' role might be helping the child to make sure that they are informed.** So for example, if they have to make a decision for their next school placements, how do they ensure the child generally has a say in that, a voice in that alongside the parents? (Tutor-2E)

Consequently, this analysis suggested that rather than preparing trainees for their roles in relation to facilitating curriculum access within the immediate setting of the learner, the approach of the programme to the distinctive role of VI teachers within the *proximal* system was mostly concerned with developing and promoting the independence of the learner. With respect to the *proximal* influence of the VI teacher, it seemed that the notion of 'independence' was mostly conceptualised as providing learners with independent skills so that they could develop their agency.

5.2.2.2. Preparation for *distal* influences

In order to gain an insight into how the programme prepares trainees for their distinctive roles with people *around* the learner (i.e. distal influences), the tutors were asked to express their views in terms of preparing trainees for their advisory roles. In relation to advisory roles for families, one tutor reported that the programme used to have a separate module in the

programme in relation to preparing trainees for their advice and guidance roles for families. She described the current process of the programme as follows:

> **It is interwoven.** […] **it all runs all the way through** and it comes a lot in Module-4 **when they have to present a case study of a child with social and emotional behaviour or difficulties and vision impairment. And then how they work with the family** and the teachers, so and then other students [trainees] can contribute and say 'have you thought that such and such', 'what about so and so'. (Tutor-1E)

Similarly, one tutor reported that trainees gained knowledge, understanding and skills in relation to their advisory roles with families through sharing their experiences and interacting with each other through online activities, as below:

> **When people study the course, then what they bring to us is a lot of real life experiences. And in a sense that…it is almost that a real life experience is a part of the course content; it is the result of people interacting with the course content.** […] It is well [a sort of] saying that 'we know how this child should be best supported in the school **but how do you get the parents to support that?'; 'how do you get parents to be willing to reinforce those same strategies at home?**' (Tutor-3E)

In line with this, it seemed that the approach of the programme to the partnership role with families included providing advice and guidance for families to support their child's independence within the home setting. It also seemed that the approach of the programme to this role included being an 'advocate' for families. For instance, one tutor emphasised that trainees needed to understand one of their roles with families as speaking on behalf of the family as well as the learner within the school setting, saying this:

> Because vision impairment is a low incidence condition […] it may be school teachers very rarely come across vision impairment so [they] can easily get forgotten about. **So unless someone advocating, someone talking [not clear], the child's voice can easily get lost**. So I think a lot of this is **ensuring the teachers understand their role in talking sometimes on behalf of the child and the family if their voice can't be heard in a very large school environment.** (Tutor-2E)

In relation to preparing trainees for their advisory roles, the tutors were also asked to express their views in relation to preparing trainees for their partnership roles with other professionals. Similarly, it appeared that the programme aimed to prepare trainees for such roles in a blended way. For example, one tutor explained the process of providing knowledge and understanding

in relation to braille in the programme, as below:

> I think a wider thing is mechanic [of braille], which is important, of course. But also you [trainees] need to think about the functional use of braille in terms of what it is for, the comprehension because most children [with vision impairment] are in mainstream schools…if they are going to be included [and] there is an issue around speed, **being able to keep up with colleagues and so on. So obviously, it is trying to bring those skills as much as possible in a way that they can be part of it.** (Tutor-4E)

With respect to preparing trainees for their roles with people *around* the learner, the tutors were also asked to express their views about the programme in terms of preparing trainees to raise awareness of vision impairment among peers and other teachers within the school setting. This analysis suggested that raising awareness of vision impairment among people *around* the learner was conceptualised not only within the immediate environment of the learner (e.g. school) but also in wider environments of the learner. For example, one tutor reported that:

> Many of [the] barriers could be made by society – they are societal barriers. **Part of the role is helping to reduce those barriers to educate the community, educating the people and the environment in which child is learning to help them understand visual impairment itself does not necessarily [a] barrier.** […] So [a] lot of the role is about making sure that you don't just think about the problems with the child. It is about the child living in a community – how do you make sure that the community understands the needs of that child. (Tutor-2E)

With respect to the distal influences of VI teachers within the *ecosystem* of the learner, it seemed that the approach of the programme to the role of VI teachers included reducing potential societal barriers through encouraging them to raise awareness among other people in *distal* environments of the child. In line with this, one tutor, for example, expressed that the programme intended trainees to understand their roles in a broader context through using an ecological framework, as below:

> At the end of the each module, students [trainees] need to reflect on the whole ecological framework. We are trying to say 'ok this module is...we are suggesting the role of the QTVI in relation to… you are operating mainly in this part of this ecological framework.' Then **at the end of the module, we say: 'now, we want you to reflect on how the content of this module related to that ecological framework'.** (Tutor-3E)

In relation to *distal* influences, the tutors were also asked to express their views in relation to preparing trainees for their roles in relation to curriculum policy development. One tutor

expressed the approach of the programme to this role, saying this:

> All the time we say to our students [trainees] **is making sure that you can fit in to the way curriculum is designed to make it more inclusive. It is not just about one child in a school. How do you ensure that there is more inclusive pedagogy, more inclusive curriculum, more inclusive approach** […] [For example] it might be fitting into the learning environments. So one of the skills is about undertaking environmental audits and then the results of those audits could fit the policy developments so that we need to make sure that we have got tactile signs on our doors, we have got high contrasting symbols in our school. (Tutor-2E)

Consequently, this analysis suggested that the programme aimed to provide trainees with knowledge and understanding in relation to their *distal* influences in wider environments of the learner. With respect to *distal* influences, therefore, it seemed that the distinctive role of VI teacher was mostly conceptualised as reducing potential societal barriers to learners' participation not only within inner setting of the learner but also in a wider environment.

5.2.3. Summary

This section presented and discussed the analysis of the views of 13 QTVIs and 4 tutors regarding the VI teacher training programme in relation to the distinctive roles of VI teachers *with* the learner and with people *around* the learner within the *ecosystem* of the learner. This analysis illustrated that the approach of the programme was shaped by the interconnected nature of the role of VI teachers both within *proximal* and *distal* systems. Therefore, it seemed that the programme focused mainly upon providing specialist knowledge, understanding and skills in relation to vision and vision impairments for preparing trainees for both their teaching and advisory roles (e.g. how the visual system works, the anatomy of the eye). Thus, the QTVI participants mostly believed that gaining knowledge and understanding regarding vision and vision impairments throughout their MQ training was helpful and useful for their distinctive roles within and between the immediate and remote environments of the learner.

With respect to the delivery methods of the programme, this analysis illustrated that a variety of techniques were viewed as useful for the roles of VI teachers *with* the learner and with people

around the learner, including teaching placements in different settings, residential weekends and enquiry-based case scenario activities. This analysis also suggested that the programme was designed by considering the interconnected nature of the role of VI teachers within the *ecosystem* of the learner. For instance, it illustrated that the programme prepared trainees for their partnership role with families and other professionals in a blended way.

The analysis also illustrated that the programme aimed to prepare trainees as 'agents of change' in parallel with the MQ outcomes. By putting the learner at the centre, this analysis suggested that with respect to preparing trainees relating to their *proximal* influences, the term 'agents of change' was mostly conceptualised as preparing trainees to provide the learner with independent skills so that they could develop their own agency. In relation to preparing trainees for their potential *distal* influences within the *ecosystem* of the learner, this analysis suggested that the role of VI teachers was mostly conceptualised as reducing potential societal barriers to learners' participation not only within inner settings of the learner but also in the wider environment.

By putting the learner at the centre, this analysis also provided an insight into *what might work better* in practice for VI teacher training in England from the perspectives of QTVIs. The QTVI participants provided some suggestions for the programme in terms of teaching literacy through alternative codes (including braille and Moon). For example, it was recommended that the programme should provide trainees with skills in teaching alternative codes including the Moon. It was also recommended that the programme should provide skills how to *teach* braille. However, in order to find out 'how well' the programme prepares VI teachers for their roles, the following section presents and discusses the stakeholder's opinions (QTVIs and trainees) regarding the VI teacher training through questionnaires.

5.3. Analysing stakeholders' opinions through questionnaires

As stated in 'Chapter 3: Methodology', questionnaires were designed to explore stakeholders' opinions (i.e. QTVIs and QTVI trainees) regarding their VI teacher training. In line with this, the questionnaire aimed to investigate the opinions of QTVIs/QTVI trainees regarding their MQ training relating to the following broad topics:

- Vision and vision impairments
- Additional/expanded core curriculum areas
- Teaching and learning activities
- Partnership working.

In order to gain the opinions of QTVIs/QTVI trainees about how well they increased their knowledge, understanding and/or skills in relation to these areas throughout their training, the respondents were asked to rate on the 4-point rating scales on the questionnaire (*1=not at all/not very well; 2=very little/fairly well; 3=somewhat/well; 4= to a great extent/very well*) (see Appendix-3a). This data was descriptively analysed using SPSS software (version 24).

In total, 48 QTVIs and 12 QTVI trainees responded to the questionnaire in Study-2 (*n*=60). While presenting the data, the numbers of respondents from 46 to 60 were assumed as 'most' of the respondents; between 31 and 45 as 'over half' of respondents; between 16 and 30 as 'some' of the respondents; and between 1 and 15 were taken as 'a small number' of respondents.

5.3.1. Demographic information of respondents

Qualified Teachers of Children and Young People with Vision Impairment (QTVIs) **–** As illustrated in Table 5.4, the QTVIs who responded to the questionnaire were 8 males (17%) and 40 females (83%). Most of the QTVI respondents (92%) were aged 50 and over (*n*=27) and in the age group of 40-49 (*n*=17). Only a small number of respondents (6%) had less than one year's experience as a QTVI (*n*=3). Most of the QTVI respondents (83%) were working with

learners with vision impairment between 11 and 14 years old (KS-3) (*n*=40). Most of them (46% and 50%) were working in mainstream schools at pre-school/primary level (*n*=22) or secondary level (*n*=24) (see Table 5.4).

Sample characteristic	N (%)
Gender	
Male	8 (17%)
Female	40 (83%)
Age	
25-29	0 (0%)
30-39	4 (8%)
40-49	17 (36%)
50+	27 (56%)
Experience as a QTVI	
Less than 1 year	3 (6%)
1-5 years	11 (23%)
6-10 years	12 (25%)
11-15 years	6 (13%)
15+ years	16 (33%)
Age group of VI learners working with*	
0-5 (early years)	24 (50%)
5-7 (KS1)	30 (62%)
7-11 (KS2)	33 (69%)
11-14 (KS3)	40 (83%)
14-16 (KS4)	39 (81%)
16+	33 (69%)
Work setting*	
Mainstream school (early years/primary)	22 (46%)
Mainstream school (secondary)	24 (50%)
Specialist school not designated for VI learners	19 (40%)
Specialist school designated for VI learners	18 (38%)
Mainstream school with a VI resource base (early years/primary)	4 (8%)
Mainstream school with a VI resource base (secondary)	4 (8%)
Other	7 (15%)

Table 5.4 Demographic information of QTVI respondents (*not mutually exclusive)

QTVI Trainees – QTVI trainees who responded to the questionnaire were 3 males (25%) and 9 females (75%). All the respondents were in the second year of their MQ training at the University of Birmingham in the 2016-17 academic year. Four respondents reported that they had previous experience as a teacher of between 3 and 5 years (33%). One respondent reported that s/he had previous teaching experience of between 6 and 10 years (8%). Three respondents reported that they had previous experience as a teacher of between 11 and 15 years (25%). Four

respondents reported that they had previous experience as a teacher of between 11 and 15 years (33%). 11 of the QTVI trainee respondents reported that they were working with children with vision impairment in the age group of 0 and 5 (92%).

5.3.2. The opinions of the respondents about their MQ training

This section addresses the questions about the opinions of QTVIs and trainees about their acquired knowledge, understanding and/or skills throughout their MQ training relating to the following areas:

- Vision and vision impairments
- Additional/expanded core curriculum areas
- Teaching and learning activities
- Partnership working.

Vision and vision impairments

As seen in Table 5.5, the results illustrated that the respondents (both groups of QTVI and trainees) believed that they increased their knowledge, understanding and/or skills to a high level throughout their MQ training in relation to vision and vision impairments. Over half of the respondents (73%) appeared to believe that they gained knowledge and understanding regarding the implications of vision impairments on development of learners 'to a great extent' (*n*=43). The respondents were also very positive relating to their learning about the principles and practices of assessing functional vision, with over half of respondents (65%) reporting their learning had been increased 'to a great extent' (*n*=39) by their training. However, it appeared that the respondents were far less positive relating to their learning about the specific developmental needs of learners with vision impairment and additional or complex needs, with

over half of respondents (67%) reporting their knowledge and understanding had been increased 'very little' (*n*=12) or 'somewhat' (*n*=28) by their training (see Table 5.5).

To what extent have you increased your knowledge, understanding and/or skills in relation to:	***Rating scale* (*N*=60)**				***Mean***		
	1 Not at all	**2** Very little	**3** Somewhat	**4** To a great extent	QTVI (*n*=48)	Trainee (*n*=12)	**Total**
The implications of vision impairments on physical, cognitive, emotional and social development of learners	0 (0%)	0 (0%)	16 (27%)	43 (73%)	3.73	3.75	**3.73**
The principles and practices of assessing functional vision	0 (0%)	6 (10%)	15 (25%)	39 (65%)	3.52	3.67	**3.55**
The anatomy of the eye and how the visual system works	1 (1%)	4 (7%)	23 (38%)	32 (53%)	3.40	3.58	**3.43**
The specific developmental needs of learners with VI and additional or complex needs	0 (0%)	12 (20%)	28 (47%)	20 (33%)	3.04	3.50	**3.13**
Total					**3.42**	**3.63**	**3.46**

Table 5.5 Responses to questionnaire items in relation to 'vision and vision impairments'

Additional/expanded core curriculum areas

The respondents were asked to answer five questions in relation to additional/expanded core curriculum areas (see Table 5.6). The results illustrated that the respondents believed their learning in relation to the principles and practice of independent living was quite positive, with most of the respondents (83%) reporting their knowledge, understanding and/or skills had been increased 'somewhat' (*n*=29) or 'to a great extent' (*n*=21) by their training. In relation to the principles and practices associated with transition, their opinions seemed to be far less positive, with some of the respondents (31%) reporting their learning had been increased 'not at all' (*n*=5) or 'very little' (*n*=14) by their training.

It appeared that the respondents were positive about their learning in relation to ICT hardware and software to support pupils' learning. Most of the respondents (77%) reported that their knowledge, understanding and/or skills had been increased 'somewhat' (*n*=28) or 'to a great extent' (*n*=18) by their training. Similarly, it appeared that they were positive about their learning about developing effective social and emotional skills of learners with vision impairment. Most of them (80%) reported that their knowledge relating to developing effective social and emotional skills of learners had been increased 'somewhat' (*n*=29) or 'to a great extent' (*n*=19) by their training. Knowledge about low vision devices to make effective use of functional vision showed a similar pattern, with most of the respondents (80%) appeared to believe that their knowledge relating to low vision devices had been increased 'somewhat' (*n*=29) or 'to a great extent' (*n*=19) by their training (see Table 5.6).

	***Rating scale* (*N*=60)**				***Mean***		
To what extent have you increased your knowledge, understanding and/or skills in relation to:	**1** Not at all	**2** Very little	**3** Somewhat	**4** To a great extent	QTVI (*n*=48)	Trainee (*n*=12)	**Total**
The principles and practice of habilitation, mobility, orientation, and independent living	0 (0%)	10 (17%)	29 (48%)	21 (35%)	3.15	3.33	**3.18**
Low vision devices to make effective use of functional vision	0 (0%)	12 (20%)	29 (48%)	19 (32%)	3.06	3.33	**3.12**
How to help learners with VI to develop effective social and emotional skills	7 (12%)	5 (8%)	29 (48%)	19 (32%)	2.96	3.17	**3.00**
A variety of ICT hardware and software to support pupil's learning	4 (6%)	10 (17%)	28 (47%)	18 (30%)	2.94	3.25	**3.00**
The principles and practices associated with successful transition for learners with VI	5 (8%)	14 (23%)	28 (47%)	13 (22%)	2.69	3.33	**2.82**
Total					**2.96**	**3.28**	**3.02**

Table 5.6 Responses to questionnaire items in relation to 'additional/expanded core curriculum areas'

Teaching and learning activities

As seen in Table 5.7, the respondents were asked to answer five questions regarding teaching and learning activities. Over half of respondents (71%) reported that they had increased their knowledge relating to arranging classrooms/settings for accessibility and safety 'well' (*n*=26) or 'very well' (*n*=17). Similarly, over half of respondents (71%) reported that their training succeeded 'well' (*n*=26) or 'very well' (*n*=17) in preparing them to adapt teaching and learning materials in an appropriate medium (including braille). Knowledge, understanding and/or skills in selecting and using the most effective teaching approaches was deemed to be quite positive by over half of the respondents (64%). However, learning in relation to using the specialist equipment and technology to overcome/reduce the impact of sight loss was viewed less positively. As illustrated in Table 5.7, some of respondents (40%) reported that this had been covered 'not very well' (*n*=7) or 'fairly well' (*n*=17) in their training.

	Rating scale (N=60)				***Mean***		
How well did/does your training prepare you to be able to:	**1** Not very well	**2** Fairly well	**3** Well	**4** Very well	QTVI (*n*=48)	Trainee (*n*=12)	**Total**
Select and use the most effective teaching approaches	5 (8%)	17 (28%)	25 (42%)	13 (22%)	2.67	3.17	**2.77**
Adapt teaching and learning materials in an appropriate medium (e.g. braille, audio, etc.)	6 (10%)	11 (18%)	26 (43%)	17 (28%)	2.75	3.50	**2.90**
Arrange settings/classrooms for accessibility and safety	4 (4%)	13 (20%)	26 (43%)	17 (28%)	2.88	3.17	**2.93**
Use specialist equipment and technology to overcome/reduce the impact of sight loss	7 (12%)	17 (28%)	27 (45%)	9 (15%)	2.58	2.83	**2.63**
Make appropriate arrangements for formal assessment approaches	10 (17%)	16 (27%)	16 (27%)	18 (30%)	2.58	3.17	**2.70**
Total					**2.70**	**3.21**	**2.80**

Table 5.7 Responses to questionnaire items in relation to 'teaching and learning activities'

Partnership working

The respondents were asked to rate their training relating to how their training prepared them for some of their potential roles with people *around* the learner within the *ecosystem* of the learner. The results illustrated that knowledge and understanding in relation to raising awareness of vision impairment among other people was viewed mostly positively. Over half of the respondents (73%) reported that their knowledge, understanding and/or skills relating to raising awareness of vision impairments among other people had been increased 'well' (*n*=20) or 'very well' (*n*=24) by their training.

With respect to collaborative roles with other professionals, over half of the respondents (65%) rated their training 'well' (*n*=27) or 'very well' (*n*=12) for preparing them to contribute to the assessment of development of learners. In relation to preparing the role in providing advice and guidance for services working in partnership with families, the responses showed a very similar pattern. Over half of the respondents (60%) rated their training in relation to preparing them for this role as 'well' (*n*=25) or 'very well' (*n*=11). However, the results illustrated that the respondents were less positive about their training in relation to preparing them to provide advice and guidance for key stakeholders (including families). Over half of the respondents (53%) reported that their training prepared them for their roles in relation to providing advice and guidance for stakeholders (including families) 'not very well' (*n*=9) or 'fairly well' (*n*=23).

The opinions of the respondents about their training in relation to their potential roles within the outer system of the learner (e.g. advising stakeholders, such as DfE, NCTL) seemed less positive. As seen in Table 5.8, over half of the respondents (51%) reported that their training prepared them 'not very well' (*n*=17) or 'fairly well' (*n*=14) for their potential roles in advising stakeholders (e.g. DfE, NCTL) relating to educational needs of learners with vision impairment.

How well did/does your training prepare you to be able to:	*Rating scale (N=60)*				*Mean*		
	1 Not very well	**2** Fairly well	**3** Well	**4** Very well	QTVI (*n*=48)	Trainee (*n*=12)	**Total**
Collaborate with other professionals to contribute to the assessment of development of pupils	7 (8%)	14 (23%)	27 (45%)	12 (20%)	2.65	3.08	**2.73**
Provide key stakeholders (including parents/carers) with data and information on the progress of the learner	9 (15%)	23 (38%)	19 (32%)	9 (15%)	2.37	2.83	**2.47**
Provide advice and guidance for services working in partnership with parents/carers	7 (12%)	18 (30%)	26 (43%)	9 (15%)	2.48	3.17	**2.62**
Work with specialist services and agencies that work with learners with VI	3 (5%)	21 (35%)	25 (42%)	11 (18%)	2.60	3.25	**2.73**
Raise awareness of vision impairment among peers, teachers and other staff	5 (8%)	11 (18%)	20 (33%)	24 (40%)	2.92	3.58	**3.05**
Advise stakeholders (e.g. DfE, NCTL etc.) on issues relating to the educational needs of pupils with VI	17 (28%)	14 (23%)	20 (33%)	9 (15%)	2.27	2.67	**2.35**
Total					**2.55**	**3.10**	**2.67**

Table 5.8 Responses to questionnaire items in relation to 'partnership working'

5.3.3. Summary

This section presented the opinions of QTVIs and trainees on their training in relation to the following areas: (1) vision and vision impairments, (2) additional/expanded core curriculum areas, (3) teaching and learning activities and (4) partnership working. For the whole group (n =60), the highest mean level of satisfaction was in relation to vision and vision impairments ($\overline{x} = 3.46$). The knowledge, understanding and/or skills that the respondent

believed in relation to vision and vision impairments area was found to be significantly higher in terms of satisfaction level than all the other areas of training*.

Conclusion

This chapter presented and discussed the findings and analysis from Study-2 (England). The data was gathered from different stakeholders linked to the VI teacher training programme in England (i.e. QTVIs, tutors and trainees) through interviews and questionnaires. By bridging textual and numeric data from Study-2, two of the research questions were answered in this chapter as follows:

(1) How do VI teachers (QTVIs) conceptualise their roles with the learner (proximal influences) and with people around the learner (distal influences) within and between immediate/external environment(s) of the learner in England?

Proximal influences were conceptualised by most of QTVI participants as 'promoting and developing the independence of learners' (e.g. developing self-advocacy skills, encouraging promoting independent living skills) and 'facilitating access to the curriculum' (e.g. teaching braille). Although a few QTVI participants reported some roles within the home setting of the learner, it seemed that *proximal* influences were established by QTVI participants mostly within school settings.

Distal influences that were developed by QTVIs appeared to occur through a variety of interconnections between the immediate settings, including multi-setting participation and inter-setting communication between home and school settings. These interconnections may be broadly summarised as developing communications with families and other professionals

* paired two-group *t*-test 'vision and vision impairments' ($\overline{x} = 3.46$) with:
- 'additional/expanded core curriculum areas'($\overline{x} = 3.02$) SD=0.53; *t*=6.382; p<0.005
- 'teaching and learning activities' ($\overline{x} = 2.80$) SD=0.63; *t*=8.051; p<0.005
- 'partnership working' ($\overline{x} = 2.67$) SD=0.72; *t*=8.680; p<0.005

(including class teachers, TAs) particularly in order to promote and develop the independence of learners. External influences within the immediate setting of the learner were mostly reported by most of the QTVI participants as raising awareness of VI among peers. This role was explained through a variety of activities, including using VI simulations in the class, explaining the role of QTVIs and providing information regarding VI. A few participants also reported a number of roles that might be considered as shaping distal influences which affect the learner's *microsystems*, such as modifying the national curriculum according to needs of learners. In relation to *distal* influences within remote settings of the learner, no engagement role was reported by the QTVI participants, such as engaging with and navigating national legislations.

Considering the time dimension within the *ecosystem* of the learner (i.e. *chronosystem*), some interactions between QTVIs and learners within the immediate environment were assumed as a long-term impact throughout the learner's lifespan, such as encouraging the learner to develop their independent learning skills.

(2) How well does the VI teacher training programme prepare VI teachers (QTVIs) for their proximal and distal influences from the points of the views of stakeholders in England?

With respect to knowledge, understanding and/or skills in relation to vision and vision impairments, the respondents (both QTVIs and QTVI trainees) were very positive about their MQ training. Therefore, in relation to teaching roles (i.e. *proximal* influence), while most of the QTVI participants believed that their MQ training had not improve their teaching skills (since they already had teaching experience), they reported that gaining specialist knowledge, understanding and skills in relation to vision and vision impairments (e.g. the anatomy of eye, educational implications of vision impairments) was useful for improving their skills for their teaching roles. Furthermore, most of the QTVIs who participated in interviews believed that

gaining specialist knowledge and understanding regarding vision and vision impairments throughout their training was useful not only for their teaching roles (i.e. *proximal* influence) but also for their advisory roles (i.e. *distal* influences). In relation to preparing VI teachers for their roles in partnership working with families and other professionals, this analysis also illustrated that the programme provided knowledge, understanding and skills in an implicit way.

Some of the QTVIs who participated in interviews reported that gaining knowledge and understanding regarding some areas of the additional/expanded core curriculum, such as mobility and ILS was useful for their advisory roles. However, a few of the QTVI participants provided some suggestions for the programme in relation to teaching an alternative literacy medium (e.g. braille, Moon).

This chapter presented and discussed the findings and analysis from Study-2 (England). The next chapter 'Chapter 6: Discussion' will discuss similarities and differences between Turkey and England through comparing/contrasting the findings from two countries.

CHAPTER 6

DISCUSSION

Introduction

This chapter presents a comparison of the findings of Study-1 and Study-2 in order to illustrate similarities and differences between the approaches to the concept of the VI teacher in Turkey and England. The chapter first explains the conceptual framework of the comparative approach of the study. It then addresses the following questions:

1. What are the similarities/differences between VI teachers' conceptualisations of their roles in Turkey and England?
2. What are the similarities/differences between the approaches of the VI teacher training programmes in Turkey and England to the distinctive role of those teachers?

Putting the learner at the centre of the analysis, the chapter addresses the first question through comparing/contrasting the conceptualisations of the roles of VI teachers in Turkey and England within *micro-*, *meso-*, *exo-* and *macrosystems* as well as within the *chronosystem*. Considering the similar aspects of the distinctive roles of VI teachers, this chapter then addresses the second question through comparing/contrasting the views of the programme stakeholders regarding the VI teacher training programmes in both countries. The chapter ends by summarising similarities and differences between the approaches to the concept of the VI teacher in Turkey and England.

6.1. Conceptual framework of the comparative inquiry

Making comparisons is widely acknowledged as fundamental to all forms of inquiry (Bray and Thomas, 1995; Phillips, 2006). Phillips (2006) defines making comparisons in educational inquiry as 'examining features of educational provision in different contexts alongside each other and reaching conclusions (judgement) about the nature of those features and the degree to which they are instructive' (p.279). As indicated in 'Chapter 3: Methodology', this study aimed to examine the features of VI teacher training programmes in Turkish and English contexts in order to reach 'judgements' about the approaches in both countries to the VI teacher concept. It did so in order to help improve educational practices for learners with vision impairment in Turkey. As Phillips (2006) states:

> 'Of many purposes of comparative inquiry in education, that of learning from the foreign example and using evidence to help improve the situation "at home" must figure prominently' (p.284).

Nevertheless, in relation to the purposes of making comparisons in educational studies, Bray (2014) argues that 'less developed countries tend to look at more developed countries [...] policy makers in industrialised countries do not often look for ideas and models in less developed countries, though it is arguable that sometimes they should do so' (p.22). Therefore, although the primary aim of the comparative inquiry in this study was to use evidence to help improve educational practices for learners with vision impairment in *Turkey* (see 'Chapter 1: Introduction'), it was assumed that undertaking comparison with Turkey might also provide contribution to England in relation to the VI teacher training programme.

Bray and Thomas (1995) state that 'every comparative [educational] study involves [the following] three dimensions: (1) geographic/locational dimension, (2) non-locational demographic groupings and (3) aspects of education and of society' (pp.473-474). Accordingly, the three dimensions of the comparative inquiry in this study were as follows:

- ***Geographical/locational dimension:*** The locational dimensions of the study were VI teacher training programmes in Turkey and England (i.e. Gazi University and University of Birmingham). These programmes can therefore be defined as the 'units of analysis' of the comparative inquiry (Bray and Thomas, 1995, p.477).
- ***Non-locational demographic groupings:*** Non-locational demographic groups were the stakeholders of those programmes (i.e. VI teachers, trainees and tutors).
- ***Aspects of education and society:*** Bray and Thomas (1995) state that the third dimension of the comparative inquiry includes aspects of education and society, such as the curriculum, teaching methods and management structures. In this study, the approaches to the concept of the VI teacher in Turkey and England were considered as aspects of education and society for the comparative inquiry.

While designing comparative studies, it is widely highlighted that researchers should be aware of potential language differences (see, for example, Bray and Jiang 2014; Thomas 2017). For example, most of the participants in Turkey expressed their views regarding mobility and independence skills as 'independent movement skills' (in Turkish: 'bağımsız hareket becerileri'). Since the participants' understandings of this term referred only to mobility skills, this term was translated into English as 'mobility skills' for the analysis.

Further, some differences in the two languages in this study helped to identify how the concepts were understood in each country context. For example, most of the participants in Turkey expressed their views regarding independent living skills as 'daily living skills' (in Turkish: 'günlük yaşam becerileri') implying their focus was upon the function and situation of the skills. In comparison, most of the participants in England used the term 'independent living skills', which appears to emphasise the independence intention of the skills more explicitly. In line with this, this comparative analysis provided an insight into the conceptualisation of independence in both countries.

Further, using Bronfenbrenner's theoretical approaches towards human development as a conceptual lens, this study provided not only a consistent structure for the data analysis in both countries but also an initial basis for understanding how the *distal* systems in Turkey and England might impact on similar aspects of the roles of VI teachers in these countries. As McLinden and McCracken (2016) recommended, conducting 'comparative studies of practice in different national contexts with a focus on examining the *macro-* and *exo-* systems […] might serve to define the function and nature of specialist teachers [including VI teachers] with a similar role but within a different national context' (p.486).

Therefore, as the next section presents, a comparison of the programmes' approaches to the distinctive role of VI teachers helped identify the approaches to the similar role of the VI teacher in Turkey and England through providing 'an initial basis for understanding and interpretation' (Bray and Thomas, 1995, p.487) in both countries.

6.2. Addressing the research questions

This section addresses the research questions of the study according to the study findings from Turkey and England, which were presented and discussed in the previous chapters (Chapter 4 and Chapter 5). The section first discusses the similarities and differences between the VI teachers' conceptualisations of their roles within and between different layers of the *ecosystem* of the learner in Turkey and England. It then discusses the similarities and differences between the approaches of the VI teacher training programmes by contrasting/comparing the views/opinions of stakeholders (i.e. VI teachers, trainees and tutors) in these countries regarding the similar aspects of the role of VI teachers.

6.2.1. What are the similarities/differences between VI teachers' conceptualisations of their roles in Turkey and England?

6.2.1.1. *Microsystem* level

In order to gain an insight into the similarities and differences regarding potential interpersonal relations experienced by learners *with* their VI teachers within their immediate setting (i.e. settings in which the learner and the VI teacher have face-to-face interactions) in Turkey and England, the VI teachers' conceptualisations of their roles *with* the learner (i.e. *proximal* influences) were compared/contrasted. In relation to 'organism-environment interaction' within the *microsystem*, Bronfenbrenner (1992) highlights that the developing person is 'an active agent who inevitably plays some part in any developmental process taking place in the microsystem' (p.238). Accordingly, the analysis of the VI teachers' conceptualisations of their roles within the *microsystem* provided an insight into some forms of interpersonal relations experienced by the learner as 'an active agent' *with* VI teachers in Turkey and England. As summarised in Table 6.1, these interpersonal relations within the *microsystem* emerged from

the analyses in relation to the following four key concepts: (1) direct teaching/interaction *with* learners; (2) additional/expanded core curriculum *teaching* focus; (3) dual view of access strategies; and (4) construction of 'independence'.

	Direct teaching/interaction *with* learners	**Additional/ECC *teaching* focus**	**Dual view of access *teaching* strategies**	**Construction of 'independence'**
Turkey (SETs)	• Within the school/centre setting (only) • Facilitating curriculum access • Teaching [independent] daily living skills	• Mobility • Independent daily living skills • Braille	• Focus greatly upon teaching strategies for access to learning	• Concerning [independent] daily living skills (mostly)
England (QTVIs)	• Within the school setting (mostly) • Facilitating access to curriculum (for teaching) • Developing and promoting independence	• Independent living skills • Braille • ICT • Self-advocacy skills	• Both access to learning and learning to access teaching strategies	• Independent living skills • Independent learning skills • Self-advocacy skills

Table 6.1 Summary of similarities/differences between the conceptualisations of the roles of VI teachers (*microsystem*)

This analysis illustrated that there were a number of similarities between direct interactions *with* the learner in terms of *environment* in which the interconnection happens between the learner and the VI teacher in the two countries studied (as summarised in Table 6.1). For example, the interpersonal relations experienced by the learner *with* the VI teacher in Turkey seemed to be limited to only within school/centre setting in which the learner participates mostly as a student. In England, similarly, *direct* interaction of the VI teacher *with* the learner appeared to occur mostly in the school setting in which the learner participates mostly as a student.

As stated in 'Chapter 2: Literature Review', regardless of different educational and legislative contexts, the distinctive role of VI teachers was widely acknowledged as facilitating access to

the curriculum in accordance with the needs of learners with vision impairment. Consistent with the literature, this analysis illustrated that some of the VI teachers in both countries conceptualised their roles at the *microsystem* level as facilitating access to the curriculum, such as using tactile materials in the teaching and learning process and teaching braille.

Concerning teaching roles, this analysis also provided an insight into how the VI teachers conceptualised their distinctive roles in relation to additional/expanded core curriculum (ECC) areas. As described in 'Chapter 2: Literature Review', although additional/expanded core curriculum areas have been discussed and referred to in a variety of ways in the literature, as highlighted by Douglas et al. (2009), the following three particular areas can be considered within this curriculum: (1) mobility, (2) information access and low vision, and (3) social skills. Considering these areas, this analysis suggested that there were a number of differences between understandings of the roles of VI teachers in Turkey and England in relation to developing and promoting mobility skills. Since there was no mobility specialist working with learners with vision impairment in Turkey, a few of the VI teachers in Turkey reported that they taught mobility skills *to* learners (despite some challenges which were explained in 'Chapter 4'). In contrast, no VI teacher in England reported any *direct* teaching role in relation to mobility skills (except some supporting strategies for navigating learners in the school). This was because mobility training seemed to be *directly* provided in most cases by other professionals who had training in the area of mobility in England, such as mobility officers.

With respect to teaching particular areas of the additional/expanded core curriculum, this comparative analysis suggested that most of the VI teachers in the two countries conceptualised their roles particularly in relation to enabling information access, such as teaching braille. The literature widely recognises the importance of teaching how to use low vision aids particularly in order for learners who have low vision to use their functional vision effectively and to provide accommodation between the learner and environment in accordance with their visual needs

(e.g. Bennett, 1997; Corn, Wall and Bell, 2000). Interestingly, no participant in either country reported any role in relation to teaching low vision aids to learners. This could be considered as possibly related to a limited usage of low vision aids in schools in Turkey. In terms of the English context, most participants had a limited one-to-one teaching role and therefore, they might not have reported any role in relation to teaching low vision aids.

In accordance with the literature, this analysis also suggested that understandings of the role of VI teachers in terms of teaching and learning activities were viewed commonly as related to 'access'. Considering the dual view of access (see McLinden and Douglas, 2014), as summarised in Table 6.1, this analysis suggested that the VI teachers in Turkey conceptualised their roles mostly in relation to providing learners with access to information (i.e. 'access to learning') rather than teaching access skills (i.e. 'learning to access'). For example, in terms of teaching ICT skills, some of the VI teachers in Turkey recognised the importance of assistive technologies. However, neither any participant reported any teaching role *with* the learner in relation to those skills; nor any participant recognised the importance of those skills in Turkey. In contrast, although the VI teachers in England appeared to conceptualise their roles in relation to 'access to learning' strategies, it seemed that some of the participants in England recognised the importance of 'learning to access' strategies for developing and promoting the independence of the learner.

As summarised in Table 6.1, this analysis implied that VI teachers in both countries had different understandings of developing 'independence' at the *microsystem* level. For example, while the VI teachers in Turkey mostly conceptualised promoting the independence of learners as 'teaching [independent] daily living skills' (e.g. teaching self-care skills, teaching how to prepare food independently), the VI teachers in England seemed to conceptualise developing independence in a broader way, which included independent learning skills and self-advocacy skills.

Consequently, although the interpersonal relations experienced by the learner *with* the VI teacher in given face-to-face settings in Turkey and England seemed to present some differences, the understanding of the role of VI teachers *with* the learner seemed to be quite similar at the *microsystem* level in the two countries. For example, the VI teachers who participated in interviews in both countries recognised the importance of facilitating curriculum access in accordance with the needs of learners. However, the key distinction between the VI teachers' conceptualisations of their roles within the *microsystem* level appeared to be in relation to the concept of 'independence'. This comparative analysis suggested that the concept of independence at the *microsystem* level of the learner was understood in a more narrow way by SETs compared to QTVIs.

6.2.1.2. *Mesosystem* level

Analysing the VI teachers' conceptualisations of their roles provided an insight into the similarities and differences between the interconnections developed by VI teachers within and between major settings of the learner in the two countries studied. This analysis suggested VI teachers in Turkey and England had a number of different understandings about their roles particularly in terms of their intentions and their ways of carrying out their roles at the *mesosystem* level. Therefore, as summarised in Table 6.2, the VI teachers' conceptualisations of their roles were compared/contrasted in relation to the following key concepts: (1) partnership role with families, (2) collaborating with other professionals, and (3) conducting functional vision assessments.

		Aim/Intention	Interconnection/Process
Partnership role with families	**Turkey (SETs)**	• To provide information and advice about the needs of the child • To advise families about the next educational setting • To change attitudes of families towards disability (as part of 'family training')	➢ Supplementary links between school/centre and home ➢ Indirect linkage (very limited) ➢ Inter-setting communications
	England (QTVIs)	• To provide information, advice and guidance about the needs of the child • To provide information about the next educational setting • To promote independence of the child at home • To encourage families to engage in activities with their child • To signpost families to external sources for additional support	➢ Primary and supplementary links within and between home and school ➢ Indirect linkage ➢ Inter-setting communications
Collaborating with other professionals	**Turkey (SETs)**	• To provide information about the academic and social progress of the learner (mostly through official educational reports)	➢ Inter-setting communications ➢ Limited face-to-face interaction
	England (QTVIs)	• To advise other professionals on reducing barriers to participation • To promote independence of the learner at the school • To improve educational support of the learner	➢ Primary and supplementary links ➢ Inter-setting communications
Conducting functional vision assessments	**Turkey (SETs)**	• To make decision for the next educational setting • To provide information and advice for teachers • To determine short-term and long-term goals for the child's development	➢ Providing information and advice considering the *degree* of vision ➢ Within a limited time and place ➢ Through official reports (mostly)
	England (QTVIs)	• To provide information and advice for the child, families, other teachers • To determine the needs of the learner	➢ Providing information and advice considering the *degree* of vision and *type* of vision impairment ➢ Continuous process within the child's educational pathway ➢ Through face-to-face interaction (mostly)

Table 6.2 Summary of similarities/differences between the conceptualisations of the roles of VI teachers (*mesosystem*)

Partnership role with families

As noted in 'Chapter 2: Literature Review', regardless of national educational contexts, the literature widely highlights that providing guidance and advice for families is one of the key aspects of the role of VI teachers. Therefore, the partnership role of VI teachers with families was thoroughly explained in the literature. For example, the literature highlights the distinctive role of VI teachers with families in a very comprehensive way, including providing information about the needs of the child, providing information regarding the educational progress of the child and providing advice and guidance regarding the next educational setting (see, for example, Stone, 1997; Spungin and Ferrell, 2000). More specifically, it is also highlighted that VI teachers should involve families in decision-making processes by providing them with information and guidance (e.g. Stone, 1997; Spungin and Ferrell, 2000; Ravenscroft, 2012). For instance, Ravenscroft (2012) states that families are required to be provided with information while deciding on the school which their child will attend because 'this will allow them to make informed choices as an equal member of the team that is involved in the child's education' (p.196).

With respect to the *mesosystem*, this analysis provided an insight into how VI teachers in Turkey and England developed the interconnections within and between school and home settings through analysing VI teachers' conceptualisations of their roles with families. In relation to the interconnection between school and home settings, as summarised in Table 6.2, most of the VI teachers in both countries conceptualised their roles as providing information and advice for families regarding the needs of their child through establishing a variety of communication ways (e.g. inter-setting communications, supplementary links). However, the features of information and advice that VI teachers provide for families seemed to be quite different in Turkey and England. In the English context, for example, some of the VI teachers conceptualised their roles with families as providing advice for families in order for them to

promote the independence of their child through engaging them in activities which occur in the child's *microsystems* (e.g. encouraging families to promote independence of their child at home). However, in the Turkish context, most of the VI teachers appeared to conceptualise their roles with families as providing advice for families in order for them to change their attitudes towards disability (see 'Chapter 4' for more information). Therefore, it seemed that while there was learner-centred approach in England in relation to the partnership role with families, there was teacher-centred approach in Turkey, which mostly emphasised 'training' of families.

Bronfenbrenner (1979) states when a *mesosystem* involves indirect links (other than the original link involving the developing person) or does not involve additional links, this connection is referred as *weakly linked* (p.211, original *italics*). In line with this, it seemed that the VI teachers in Turkey might develop 'weaker' connections within and between home and school settings compared to VI teachers in England with respect to the process of the roles within the *mesosystem*. In particular, Bronfenbrenner (ibid.) highlights the importance of indirect linkages between settings, stating this:

> 'The developmental potential of a mesosystem is enhanced to the extent that there exist indirect linkages between settings that encourage the growth of mutual trust, positive orientation, goal consensus, and a balance of power responsive to action in behalf of the developing person [HYPOTHESIS 38]' (p.216)

Accordingly, the indirect linkage developed by VI teachers between home and school/centres in Turkey might be referred as 'weakly linked'. This was because the VI teachers in Turkey reported very limited roles with families that involve additional links (such as signposting families to external sources to get them additional support) in contrast to the VI teachers in England.

Collaborating with other professionals

This comparative analysis provided an insight into interconnections that were developed by VI teachers within and between immediate settings with other professionals working *around* the

learner in the countries studied. As summarised in Table 6.2, this analysis suggested that the VI teachers in Turkey established limited communications with other professionals compared to VI teachers in England. In fact, this could be considered to be due to a lack of professionals working in the area of vision impairment education in schools (such as TAs, mobility officers) and a limited number of professionals working in the field of vision impairment (such as low vision specialists) in Turkey. Therefore, VI teachers in Turkey seemed to have very limited options for developing interconnections with other professionals compared to VI teachers in England. Most of these differences could also be considered as arising from the different nature of the job of VI teachers in these countries. For example, since there was no visiting teacher service for pupils with vision impairment in Turkey, no participant in Turkey reported any role similar to the roles that VI teachers with peripatetic roles in England reported, such as visiting the home setting.

In relation to specialist teachers who have peripatetic roles, McLinden and McCracken (2016) state that 'an important aspect of the visiting teacher in facilitating inclusive educational practice is the ability to navigate a complex array of social relationships and *systems*' (McLinden and McCracken, 2016, p.480, *italics* added). In line with this, this comparative analysis suggested that VI teachers with peripatetic roles in England might develop more complex interrelations within and between the immediate settings of the learner than VI teachers might develop in Turkey.

Further, Bronfenbrenner (1979) states that the most critical direct link within the *mesosystem* is a *setting transition*, which occurs when the developing person enters a new environment (p.210, original *italics*). In line with this, he highlights that if the developing person's initial transition into a setting is done while accompanied by one or more persons, a developmental potential of the setting is enhanced (e.g. when a mother accompanies her child to school). Accordingly, this analysis suggested that VI teachers in England might establish 'stronger' links between settings

compared to VI teachers in Turkey. This was because while some VI teachers in England reported a number of *direct links* in relation to the transition process for the next potential setting of the learner (e.g. arranging visits to colleges for 16+ year pupils), the VI teachers in Turkey did not report any role in relation to making connections for learners within a new setting.

Conducting functional vision assessments

Another concept regarding the distinctive role of VI teachers at the *mesosystem* level was related to the role of VI teachers in conducting functional vision assessments. Although most of the participants in both countries surprisingly did not report any 'current' role in conducting functional vision assessment at the time that interviews were conducted, as summarised in Table 6.2, this analysis suggested that this role was conceptualised differently by the participants in Turkey and England particularly in terms of aims and processes of conducting functional vision assessments.

The literature widely emphasises that functional vision assessments should be conducted in a comprehensive way (e.g. providing a number of sessions by using a variety of activities in different environments, conducting a number of observations) for a variety of reasons, for example, in order to provide advice for the child on how to increase/enhance their visual efficiency and to determine the preferred lighting and position of the child in the class (e.g. Mason, 1997; Koenig et al., 2006). The importance of collaborative work of VI teachers with other professionals and families was also highlighted in this process (e.g. 'a multiagency approach' in: Ravenscroft, 2012, p.201). However, this analysis implied that while the importance of involving the learner and the family in the decision-making process was recognised by some of the VI teachers in England, this was not recognised by most of the VI teachers in Turkey (discussed this on the *macrosystem* level in 'Section 6.2.1.4').

In addition, as summarised in Table 6.2, the VI teachers in Turkey and England appeared to have different understandings in terms of aims of conducting functional vision assessments. The VI teachers in Turkey (those working in Guidance and Research Centres/GRCs) reported that they carried out functional vision assessments in order to make decisions for the next educational setting of the learner as well as to provide information and advice for the teacher in the school setting. However, although most of the VI teachers in England did not report any role in relation to conducting functional vision assessments, they appeared to recognise the importance of providing information and advice not only for teachers but also for learners themselves and their families within this process (for detailed discussion see 'Section 6.2.1.4').

Although most of the VI teachers who participated in interviews did not report any role in conducting functional vision assessments in either country, this comparative analysis provided an insight into the process of conducting these assessments in Turkey and England. For example, the VI teachers in Turkey described the process of conducting functional vision assessments within a limited time (mostly once in each school year) and within a limited place (only in a GRC in Turkey), while the VI teachers in England described the process of conducting the assessments as a continuous process within the child's educational pathway. Additionally, through conducting functional vision assessments, the VI teachers in Turkey seemed to provide advice for teachers in relation to the academic and social development of the learner through official reports (i.e. 'educational [diagnosis] reports') according to the *degree* of the vision of the learner (in most cases as 'learners with low vision' and 'learners who are totally blind'). However, the VI teachers in England appeared to understand their roles as providing teachers with advice (mostly through face-to-face interactions) in order to reduce barriers for learning and participation according to the *degree* of vision and particularly the *type* of vision impairment.

Consequently, although the VI teachers in Turkey and England reported some similar roles within the *mesosystem* (e.g. advising families, conducting functional vision assessments), this comparative analysis illustrated a number of differences between the VI teachers' understandings of these roles. At the *mesosystem* level, this analysis suggested that VI teachers in England might establish more 'complex' connections and relationships within and between major settings, which involve connections with more people *around* the learner (i.e. families, other professionals) compared to VI teachers in Turkey. This comparative analysis, therefore, implied that the interconnections developed by VI teachers in England might be 'stronger' than the VI teachers' interconnections within the *mesosystem* of the learner in Turkey.

6.2.1.3. *Exosystem* level

As the previous two chapters illustrated, the VI teachers in Turkey and England expressed their roles at the *exosystem* level of the learner through a similar approach (e.g. raising awareness of peers, teachers). However, similar to the roles within the *mesosystem* level, the VI teachers' understandings of their roles within the *exosystem* level seemed to differ in terms of their objectives and their ways of carrying out those roles. Therefore, as summarised in Table 6.3, the conceptualisations of VI teachers in Turkey and England within the *exosystem* were discussed in relation to the following three key concepts: (1) raising awareness among peers, (2) raising awareness among teachers/staff, and (3) curriculum policy development.

		Aim/Intention	Process/Practice
Raising awareness among peers	**Turkey (SETs)**	• To develop and promote positive relationships with peers • To change their attitudes towards *disabilities*	• Speaking on behalf of the learner
	England (QTVIs)	• To develop and promote positive relationships with peers • To enable peers to have an understanding about *vision impairment* • To develop positive attitudes towards *vision impairment*	• Providing information about VI and the role of QTVIs • Arranging activities (e.g. peer workshops) • Using VI simulations
Raising awareness among teachers/staff	**Turkey (SETs)**	• To change attitudes towards disability • To develop inclusive practices	• Speaking with other teachers/administrative staff • Encouraging other teachers/administrative staff to involve the learner in same activities
	England (QTVIs)	• To improve educational support provided for the learner in the school	• Arranging training sessions about VI • Providing information about VI
Curriculum policy development	**Turkey (SETs)**	• To teach [independent] daily living skills	• Modifying a curriculum subject in the national curriculum
	England (QTVIs)	• To modify the national curriculum in accordance to distinctive needs of the learner	• Writing attainments and assessment procedures in the national curriculum

Table 6.3 Summary of similarities/differences between the conceptualisations of the roles of VI teachers (*exosystem)*

In line with increasing inclusive practice, VI teachers' roles in raising awareness of vision impairment among peers and teachers has been recently highlighted in the literature (e.g. McLinden et al., 2016; 2017a; 2017b) as well as in a number of national standards/competencies for VI teachers (see, for example, MoNE, 2008; NCTL, 2016). Most of the VI teachers in the two countries recognised the importance of raising awareness among peers and other teachers/staff in the school setting. However, this comparative analysis suggested that VI teachers in Turkey and England had different understandings about the concept of 'raising awareness'. For example, the VI teachers in Turkey reported a number of negative attitudes of

other teachers/staff towards disability (see ‘Chapter 4’ for more information). Therefore, as summarised in Table 6.3, this analysis suggested that the VI teachers in Turkey mostly seemed to understand ‘raising awareness’ as changing the attitudes of others (e.g. teachers, peers) towards *disability*. In contrast, this analysis implied that the VI teachers in England seemed to understand ‘raising awareness’ as related to *vision impairment* (see Table 6.3).

This analysis also suggested that there were certain differences between processes/practices of VI teachers in Turkey and England in relation to their roles in raising awareness among peers and other teachers/staff in the school. As summarised in Table 6.3, while the VI teachers in Turkey mostly understood their role as speaking informally with other peers and teachers/administrative staff in the school, the VI teachers in England reported a range of activities for raising awareness among peers and other teachers/staff, such as organising peer workshops and using VI simulations in the classroom.

At the *exosystem* level, although most of the participants in both countries did not report any role in relation to curriculum policy development in either country, this analysis suggested that VI teachers in Turkey and England had different understandings about their roles in relation to curriculum policy development (see Table 6.3). As described in ‘Chapter 4’, only a small number of participants reported their role in this area in Turkey, and this related to modifying a curriculum subject in the national curriculum in order to teach [independent] daily living skills. Similarly, while most of the VI teachers in England did not report any role in relation to curriculum policy development, as stated in ‘Chapter 5’, only a very small number of participants reported that they modified the national curriculum in accordance with the needs of learners with vision impairment.

To sum up, this comparative analysis suggested that VI teachers in Turkey and England had different understandings about their roles within the *exosystem,* in particular regarding their aims/intentions and practices of carrying out these roles. This analysis implied that VI teachers in England have a more comprehensive understanding of raising awareness practices than the VI teachers in Turkey. It also implied that while most of the VI teachers in Turkey conceptualised their role in terms of raising awareness among other peers and teachers/staff towards *disability,* the VI teachers in England conceptualised their roles in terms of raising awareness among others towards relating to *vision impairments*.

6.2.1.4. *Macrosystem* level

As previously noted, *macroystems* can be either as formal explicit forms (e.g. laws, regulations and rules) or informal implicit forms (e.g. in the minds of society's members as ideology). Bronfenbrenner (1977) highlights that 'most macrosystems are *informal* and *implicit* – carried, often unwittingly, in the minds of the society's members as ideology made manifest through custom and practice in everyday life' (p.515, *italics* added). In line with this, it seemed that no participant in either country reported any engagement role within the formal forms of *macrosystems*, such as engaging with and navigating national legislations (as stated by McLinden et al., 2017b). Nevertheless, this analysis provided an insight into the impact of both forms of the *macrosystems* (explicit and implicit forms) on the distinctive role of VI teachers in Turkey and England. For example, it suggested that VI teachers in both countries had different understandings regarding their partnership role with families due to differences in the formal forms of the *macrosystems* in these countries.

More specifically, this comparative analysis identified a number of differences between conceptualisations of the learner with vision impairment and their families in explicit forms of the *macrosystems* in both countries. For example, in England, in accordance with the Children

and Families Act 2014, the SEND Code of Practice highlights that while local authorities are carrying out their duties in relation to children and young people with special educational needs (SEN), they must have regard to:

> 'the views, wishes and feelings of the child or young person, and the child's parents [and] the importance of the child or young person, and the child's parents, *participating as fully as possible in decisions*, and being provided with the information and support necessary to enable participation in those decisions' (DfE, 2015, p.19, *italics* added).

On the other hand, the Special Education Service Regulation in Turkey stresses 'the active participation of families within all special education process' (MoNE, 2018b, p.3), stating that 'the opinion of the individual or the family should be sought regarding the educational assessment process' (ibid. p.3). However, as noted in 'Chapter 1: Introduction', the family was defined only as a committee member within the decision-making process in Turkey (ORGM, 2018). Considering these differences, this comparative analysis illustrated that the importance of the participation of the learner and their family in the decision-making process was not stressed within the *distal* systems of the learner in Turkey as much as in England.

This analysis also provided an insight into some sort of implicit forms of the *macrosystem* in Turkey and England. For example, in terms of the Turkish context, this analysis implied that the society's negative attitudes towards disability might have impact on the distinctive roles of VI teachers with respect to developing the independence of learners in Turkey, such as developing mobility skills (see 'Chapter 4' for more information). For the English context, this analysis suggested that although the distinctive role of VI teachers was clarified within the explicit form of the *macrosystem* of the learner (i.e. laws, codes of practice), the understanding of society towards the distinctive role of VI teachers in England (i.e. the implicit form of the *macrosystem*) might be sometimes unclear in the mind of society. Therefore, while the VI teachers in England did not report any engagement role at the *macrosystem* level, such as engaging in SEN legislations, it appeared that the distinctive role of VI teachers within the

macrosystem might be navigating distal influences through raising awareness of the specialist role of QTVIs.

Consequently, although this analysis provided very limited understanding of how VI teachers conceptualised their roles at the *macrosystem* of the learner in Turkey and England, it illustrated the differences between the *distal* systems of the learner in both countries. Therefore, not only did the analysis provide an understanding of the impact of the explicit and implicit forms of the *macrosystem* on distinctive roles of VI teachers in Turkey and England; but it also provided a broad understanding of how the learner, the family and the VI teacher were conceptualised within the *distal* systems in both countries.

6.2.1.5. *Chronosystem*

As indicated in the previous two chapters ('Chapter 4' and 'Chapter 5'), the role of VI teachers in developing and promoting the independence of the learner within and between different layers of the *ecosystem* was considered as a long-term impact over the learner's life course. Therefore, in order to have an insight into similarities and differences between the VI teachers' conceptualisations of their roles within the scope of the *chronosystem*, the participants' views about their roles in relation to developing and promoting learners' independence were compared/contrasted by considering the *time* element (both within *proximal* and *distal* systems of the learner).

McLinden et al. (2017b) define one of the distinctive roles of VI teachers within the scope of the *chronosystem* as 'to support the development of distinctive skills [of the learner] in order to afford independent learning' (p.579). As presented in 'Chapter 4', the VI teachers in Turkey mostly expressed their roles in relation to promoting the independence of learners in [independent] daily living skills. They neither reported any role in relation to developing independent learning skills nor recognised the importance of those skills. In contrast, the VI

teachers in England mostly expressed their role in a broader context, including developing independent learning skills. Considering this, it seemed that the perception of the developing child as someone who would become an adult was central to the programme in England (like an 'arrow' running through the whole *ecosystem*). However, this seemed to be less pronounced in Turkey. Arguably then, this analysis implied that the VI teachers' conceptualisations of their roles within the scope of the *chronosystem* was very much linked with how they viewed the *developing* child.

In the English context, VI teachers also seemed to perceive the learner as an 'active agent' (Bronfenbrenner, 1992, p.238) contributing to their own development. For example, at the *microsystem* level, some VI teachers in England highlighted the importance of developing self-advocacy skills (e.g. explaining their vision impairment, requesting adjustments) in order for learners to be independent not only in one setting during one limited time, but also in order for them to be independent within other settings throughout their life. Similarly, at the *mesosystem* level, the VI teachers in England conceptualised their roles in conducting functional vision assessments not only as informing other people *around* the learner (e.g. families, teachers) but also as informing and advising the learner about their needs in order for them to speak about their needs with different people within different settings. Therefore, this comparative analysis suggested that the VI teachers in Turkey did not conceptualise the learner as 'active' as the VI teachers in England did due mainly to the mechanism of the *macrosystems* in Turkey.

In particular, the VI teachers in England seemed to recognise the importance of the developing independence of the learner in other settings apart from the school (particularly in the home setting through advising families). They also expressed the importance of involving families and other professionals in the process of promoting the independence of the child. However, the VI teachers in Turkey reported a limited role for involving other people *around* the learner in activities to develop the learner's independence compared to the VI teachers in England.

Therefore, the process of developing the independence of the learner appeared to be commonly limited to developing the independent living skills of the learner, which involves one person (apart from the learner) within only one of the immediate settings of the learner (mostly in the school environment) in Turkey.

As stated in 'Chapter 2: Literature Review', the literature widely highlights that VI teachers are required to have knowledge, understanding and skills/competencies to be able to ensure that additional/expanded core curriculum areas are taught to learners with vision impairment for promoting and developing their independence (e.g. Sapp and Hatlen, 2010; Allman and Lewis, 2014). In relation to developing skills in the ECC, for example, Lewis and Allman (2014) argue that teachers should not prepare a plan for just one year; rather, they should prepare a plan that includes collaboration with the child's family members, school staff and other professionals throughout the child's educational life through a consideration of 'beginning with the end in mind'. No participant in either country reported any role in relation to planning to develop ECC skills in early ages of the child. However, while the VI teachers in England conceptualised their roles in relation to developing skills in additional/expanded core curriculum areas within and between different *systems* through collaborating with people *around* the learner (e.g. family members, other professionals), the VI teachers in Turkey mostly reported their roles only at the *proximal* level (i.e. teaching role).

McLinden et al. (2017b) explain one of the distinctive roles of VI teachers within the scope of the *chronosystem* as finding a balance between providing access to the core curriculum and developing the learner's independence over time. In line with this, as presented in 'Chapter 4', a small number of the VI teachers in Turkey reported some challenges in finding a balance between providing access to the core curriculum and developing the learners' independent living skills. However, no VI teacher who participated in this study in England reported any challenge regarding this.

Consequently, considering the *time* dimension, this analysis suggested that the VI teachers in Turkey mostly recognised the importance of developing and promoting the independence of the learner as teaching them [independent] daily living skills within *only* school setting throughout a limited time frame over their life course. However, the analysis implied that the VI teachers in England mostly recognised the importance of developing and promoting independence of the learner by acknowledging them as 'an active agent' contributing to their own development as well as recognising the participation of other people *around* the learner in this process (e.g. family members, other professionals).

6.2.2. What are the similarities/differences between the approaches of the VI teacher training programmes in Turkey and England towards the distinctive roles of VI teachers?

In order to gain an insight into the similarities/differences between the approaches of the VI teacher training programmes, the views/opinions programme stakeholders (i.e. VI teachers, trainees and tutors) in Turkey and England were compared/contrasted. Table 6.4 illustrates the number of programme stakeholders who participated in the study in both countries.

	Turkey (N)			**England (N)**		
	SETs	**Trainees**	**Tutors**	**QTVIs**	**Trainees**	**Tutors**
Interview	17	-	6	13	-	4
Questionnaire	54	82	-	48	12	-

Table 6.4 Numbers of participants/respondents in Turkey and England

As the previous section illustrated, the distinctive roles of VI teachers were conceptualised in a number of different ways in Turkey and England. For example, while most of the VI teachers in Turkey conceptualised their roles in relation to additional/expanded core curriculum areas at the *proximal* level of the learner, some VI teachers in England (particularly those who had peripatetic roles) conceptualised their roles at the *distal* level of the learner. In addition,

consistent with the literature, this analysis illustrated that the roles of VI teachers were interwoven with each other. Nevertheless, considering the similar aspects of the roles of VI teachers in Turkey and England, the views/opinions of stakeholders regarding the programmes were discussed in line with those teachers' similar (or common) roles both *with* the learner (*proximal* influence) and with other people *around* the learner (*distal* influence) as follows:

- Facilitating access to the curriculum
- Developing and promoting independence
- Partnership working (with families and/or other professionals)

6.2.2.1. Facilitating access to the curriculum

The literature suggests that the role of VI teachers in facilitating access to the curriculum can be considered in a variety of ways (see 'Chapter 2: Literature Review'). For example, this role of VI teachers can be defined as either ensuring 'access to learning' by providing the learner with close support to make the educational setting accessible or ensuring 'learning to access' by providing the learner with independence skills in areas of the additional/expanded core curriculum (McLinden and Douglas, 2014, p.14). Similarly, this study's findings suggested that the role of VI teachers in facilitating curriculum access is a broad role, which includes a variety of aspects regarding supporting learners with vision impairment. For example, the VI teacher may seek to ensure the curriculum is accessible by either making adjustments themselves when teaching the curriculum subject (*proximal* influence – common in the role of SETs in Turkey) or showing other professionals how to do it (*distal* influence – common in the 'peripatetic teacher' role in England).

This analysis illustrated that the two programmes had different approaches in providing trainees with knowledge, understanding and skills in relation to the role of facilitating curriculum access for learners with vision impairment. For example, in contrast to the programme in England, it

seemed that the programme in Turkey placed high priority to preparing trainees to *teach* the curriculum through enabling curriculum access for learners with vision impairment. Particularly due to the differences between the entry requirements of the two programmes, considering trainees' lack of previous teaching experience, the programme in Turkey focused more attention on providing trainees with skills in teaching some of the curriculum subjects at primary school level (e.g. mathematics, literacy and science). However, the programme in England seemed to aim at providing trainees with knowledge, understanding and skills through building upon their previous experiences in teaching a curriculum subject.

As stated in 'Chapter 2: Literature Review', the skills/competencies for VI teachers have usually been viewed as *above* and *beyond* other general classroom teacher competencies in England, while in Turkey these skills/competencies have been viewed as parallel (but different) to general classroom teacher competencies. Therefore, VI teacher training has never been viewed as an additional training to initial teacher training in Turkey except the first teacher training programme which were opened and closed in the 1950s (for more information see 'Chapter 2: Literature Review'). While the literature widely highlights the requirement of 'specialist' teacher training in the field of vision impairment education in relation to the necessity of VI teachers having competencies *over* and *above* those of general classroom teachers, there is no evidence in the literature to say that providing VI teacher training after initial teacher training (i.e. continued professional development) is more useful than providing VI teacher training as an initial teacher training route. Nevertheless, this analysis suggested that building VI teacher training upon a platform of initial teacher training might provide a number of advantages, and in particular for preparing trainees for their roles in relation to facilitating access to curriculum. For example, a lack of previous teaching experience of trainees was considered by the tutors in Turkey as challenging when it came to trainees' applying learning outcomes effectively in their teaching practice (see 'Chapter 4'). Furthermore, as stated in

‘Chapter 5’, the VI teachers in England mostly appeared to believe their training enabled them to facilitate curriculum access for learners with vision impairment since they already had experience in teaching a specific curriculum area.

Therefore, the findings implied that having previous knowledge and skills in teaching a specific curriculum area might provide teachers with ‘confidence’ in adapting that curriculum area in accordance with the needs of learners with vision impairment (as it was in England). Nevertheless, it can be recognised that even previous teaching experience in England cannot provide insight for all aspects of the curriculum. The initial teacher training in England may involve some specialism in terms of age group (early years, primary or secondary), and curriculum focus in the case of secondary teachers. However, the study’s findings implied that teaching one specific curriculum area might provide trainees with ‘confidence’ in adapting the curriculum in accordance with the needs of learners with vision impairment, and credibility when advising other professionals in curriculum adaptation. This also might be considered as an advantage for VI teacher training programmes. For example, when trainees have not enough knowledge and skills in teaching a curriculum subject, they are required to gain knowledge and skills in teaching that specific subject in addition to adapting it in accordance with the needs of learners with vision impairment throughout their VI teacher training (as it was in Turkey). Therefore, it seemed that providing trainees with knowledge and skills in both aspects can be a challenge for VI teacher training programmes.

The study’s findings particularly highlighted the benefits of having previous teaching experience of VI teachers in relation to their roles in facilitating curriculum access. However, it could be argued that being a qualified teacher prior to VI teacher training might also benefit VI teachers in relation to their roles with families. For example, some of VI teachers in both countries highlighted the importance and credibility of having ‘experience’for their roles in

advising and supporting families (see ‘Section 4.2.1.2.’ and ‘Section 5.2.1.2). Accordingly, it appeared that being a qualified teacher might provide teachers with experience and this could provide them with benefits for their advisory roles with families.

More importantly, this analysis implied that the programme in England aimed to provide trainees with specialist knowledge and understanding in relation to vision and vision impairments (e.g. the anatomy of the eye, the educational implication of different types of vision impairment) in order to prepare them to facilitate curriculum access for learners with vision impairment. Indeed, the literature widely highlights that VI teachers should have knowledge and understanding of a variety of educational implications of different types of vision impairments in order for them to enable curriculum access (see, for example, Bishop, 1978; Mason, 1997). As Bishop (1978) states, ‘it is important to keep in mind […] that each child’s visual condition is peculiarly his own and “the rules” cannot *always* be applied’ (p.7, original *italics*). For example, while some learners who have retinitis pigmentosa may need to use ‘the smallest print possible so that the remaining field of vision receives the maximum amount of information’ (Mason, 1997, p.47), some learners who have nystagmus may need to avoid ‘close visual tasks for extended periods of time [which] can lead to visual fatigues’ (ibid. p.46).

However, the findings of Study-1 implied that the VI teachers in Turkey did not have sufficient knowledge and understanding regarding different types of vision impairments. For example, as stated in the previous section, while the VI teachers in England reported their roles considering the *degree* of vision and *type* of vision impairment of the learner, the VI teachers in Turkey reported their roles considering only the *level* of the vision of learners. This was also confirmed by the numeric data analysis of the study. As seen in Table 6.5, the respondents in England (i.e. QTVIs and trainees) (n=60) held more positive opinions than the respondents held in Turkey

(i.e. SETs and trainees) (n=136) in relation to their knowledge in the area of vision and vision impairments acquired throughout their training (p<0.05). More specifically, this analysis illustrated that the respondents in England held more positive views regarding their knowledge in relation to the anatomy of the eye and how the visual system works as well as the implications of vision impairments which they acquired throughout their training compared to the respondents in Turkey (p<0.05) (see Table 6.5).

To what extent have you increased your knowledge, understanding and/or skills in relation to:	**Mean**		**MD**	**SE**	***p* level**
	T n=136	**E** n=60			
The anatomy of the eye and how the visual system works	2.31	3.43	-1.13	0.11	.000*
The implications of vision impairments on physical, cognitive, emotional and social development of learners	3.22	3.73	-0.51	0.08	.000*
The principles and practices of assessing functional vision	3.20	3.55	-0.35	0.12	.004*
The specific developmental needs of learners with VI and additional or complex needs	2.87	3.13	-0.27	0.11	.024*
Total	**2.90**	**3.46**	**-0.56**	**0.08**	**.000***

Table 6.5 Comparison of means of the responses regarding 'vision and vision impairments' in Turkey (T) and England (E). **Note:** Rating scale is from 1 (not at all) to 4 (to a great extent). MD: Mean difference; SE: Standard error; *p* level reported to three decimal places; *statistically significant=p<0.05.

In relation to the roles of VI teachers in facilitating curriculum access, the programme stakeholders (i.e. VI teachers and trainees) were also asked to rate their training regarding teaching and learning activities through questionnaires. As seen in Table 6.6, the respondents in Turkey (n=136) held more positive opinions than the respondents held in England (n=60) in relation to their learning regarding teaching and learning activities throughout their training (p<0.05). More specifically, the respondents in Turkey held more positive opinions than the respondents in England towards their learning in relation to selecting and using the most effective teaching approaches for learners with vision impairment (p<0.05). In line with this, it

seemed that the programme in Turkey focused more attention on providing trainees with understanding of teaching and learning activities in comparison with the programme in England (see Table 6.6).

How well did you training prepare you to be able to:	Mean		MD	SE	*p* level
	T *n*=136	E *n*=60			
Select and use the most effective teaching approaches	3.22	2.77	0.45	0.12	.000*
Adapt teaching and learning materials in an appropriate medium (e.g. braille, audio, etc.)	3.21	2.93	0.25	0.12	.042*
Arrange settings/classrooms for accessibility and safety	3.15	2.90	0.28	0.11	.013*
Use specialist equipment and technology to overcome/reduce the impact of sight loss	2.92	2.70	0.19	0.13	.144
Make appropriate arrangements for formal assessment approaches	2.82	2.63	0.22	0.14	.122
Total	**3.04**	**2.80**	**0.24**	**0.10**	**.013***

Table 6.6 Comparison of means of the responses regarding 'teaching and learning activities' in Turkey (T) and England (E). **Note:** Rating scale is from 1 (not very well) to 4 (very well). MD: Mean difference; SE: Standard error; *p* level reported to three decimal places; *statistically significant=$p<0.05$.

As stated in 'Chapter 2: Literature Review', although there is no evidence in the literature that one approach, design or method is more 'effective' than the other for VI teacher preparation programmes, a number of methods/techniques were suggested as useful for those programmes (e.g. PBL/EBL case scenario activities, video clips, and practicum experiences). Consistent with the literature, this analysis suggested that the VI teachers in Turkey believed that practicum experiences in their pre-service training were helpful for their teaching roles. Similarly, it seemed that the participants in England (mostly tutors) believed that visiting teaching placements and EBL activities were useful in terms of preparing VI teachers for their teaching roles. However, due to the differences in delivery types between the programmes in Turkey and England (i.e. campus-based and distance learning), the techniques of the two programmes in relation to preparing trainees for their teaching roles seemed to differ from each other. For

example, in contrast to the programme in England, the programme in Turkey appeared to focus more attention on practicum experiences of trainees in different educational settings (including special education schools, Vocational Training Centres/VTCs) in order to prepare trainees for their future teaching role.

In relation to the distinctive role of VI teachers in facilitating curriculum access, as presented in the two previous chapters ('Chapter 4' and 'Chapter 5'), this analysis provided an overview of the VI teacher training programme in each country, particularly how these programmes provided knowledge, understanding and skills in terms of braille. For example, as stated in 'Chapter 5', a small number of participants in England reported that the programme should not only provide knowledge, understanding and skills regarding braille, but should also cover knowledge about how to *teach* braille. In terms of the English context, therefore, this analysis offered some similar insights consistent with previous studies conducted in the UK (see, for example, Keil, 2004; Johnston, 2004).

This analysis also illustrated a number of similarities between the views of VI teachers in both countries about teaching braille. For example, having experience in teaching braille was highlighted by most of the VI teachers in both countries as important in order to be able to *teach* braille effectively. Therefore, consistent with the literature, this analysis suggested that in-service training (or refresher training) relating to braille might be provided for some VI teachers in both countries (particularly for those who will work with braille users) in order to improve their competencies in braille literacy (see, for example, Wittenstein and Pardee, 1996; Amato, 2002; Keil, 2004).

In line with the increase in inclusive practice, the literature also highlights the importance of the collaborative role of VI teachers with other professionals in relation to providing learners with braille skills. For example, with respect to teaching literacy through braille in mainstream

settings, Roe et al. (2014) highlight the importance of collaborative work in teaching braille, arguing that children should be provided with braille instruction by a VI teacher (QTVI) complemented by an additional member of staff (TA) with specific training in the area of vision impairment education. Considering the VI teachers' conceptualisations of their roles, it seemed that the role of the VI teachers in relation to braille was mostly limited to the *proximal* influences in Turkey (e.g. teaching braille, providing braille materials in order to *teach* the curriculum), while this role was conceptualised in England both within *proximal* and *distal* levels (e.g. collaborating with other professionals).

In relation to teaching literacy to learners with vision impairment through alternative codes, the literature suggests that alternative tactile codes (e.g. Moon) can be more appropriate for some children who have very low vision, including those have multiple disabilities and vision impairment (Douglas et al., 2009). For example, the Moon Code may provide some benefits for children who have multiple disabilities and vision impairment, such as social interaction with other children and other people (e.g. McCall and McLinden, 2007). Consistent with the literature, although no VI teacher in England reported any [current] role in teaching Moon literacy, the importance of teaching Moon literacy to learners who have multiple disabilities and vision impairment was recognised by some of the participants in England. In contrast, no participants in Turkey (both VI teachers and tutors) reported any role in teaching Moon nor did they recognise its importance. Therefore, it seemed that the VI teacher training programme in Turkey did not provide trainees with any knowledge, understanding and skills in Moon.

Consequently, as summarised in Table 6.9, the following key points emerged for both programmes throughout this comparative analysis in relation to the role of VI teachers in facilitating curriculum access (both at *proximal* and *distal* levels):

- In line with the differences between the entry requirements of the programmes in Turkey and England, the programme in Turkey appeared to focus more attention on preparing trainees for their *teaching* roles in comparison to the programme in England.
- In England, providing trainees with knowledge, understanding and skills regarding vision and vision impairments (including educational implications of different types of vision impairments) seemed to be basic component of the programme content. However, the participants in Turkey (i.e. VI teachers and tutors) did not recognise the importance of having knowledge in the area of vision and vision impairments for the roles of VI teachers.
- With respect to knowledge, understanding and/or skills in the area of vision and vision impairments that the programme stakeholders acquired throughout their training, the participants in England seemed to have more positive opinions about the programme compared to the respondents have in Turkey.
- In relation to their knowledge, understanding and/or skills in teaching and learning activities (including facilitating curriculum access strategies), the respondents in Turkey (i.e. SETs and trainees) seemed to have more positive opinions than the respondents in England seemed to have (i.e. QTVIs and trainees).
- Most of the participants in both countries (i.e. VI teachers and tutors) believed that practicum experiences ('visiting teaching placements' in England) were useful in order to prepare VI teachers for their roles in facilitating curriculum access.
- Concerning teaching literacy through braille, most of the VI teachers in both countries highlighted the importance of experience in teaching braille. Therefore, neither of the VI teacher training programmes was deemed by a number of the VI teachers in the two countries as 'sufficient' for preparing them to *teach* braille effectively.

6.2.2.2. Developing and promoting independence of learners

In order to develop and promote the independence of learners, the role of VI teachers in developing additional/expanded core curriculum (ECC) areas is widely highlighted in the literature (e.g. Hatlen, 1996; Sapp and Hatlen, 2010). As Hatlen (1996) states, for all educators who work with children with vision impairment, to provide ECC skills 'is the heart of the responsibility' (p.31). However, considering the role of additional staff/professionals in teaching skills in additional/expanded core curriculum areas (e.g. TAs, mobility officers), the literature review suggested an 'ambiguity' in the role of VI teachers and additional staff/professionals in providing those skills (see 'Chapter 2' for detailed discussion). For the English context, this analysis did not reveal how much of such roles were carried out by QTVIs and additional support staff in England. Nevertheless, the findings of the study suggested that considering the responsibility of additional support staff, the programme in England did not give relatively high priority to providing training in some of the additional/expanded core curriculum areas, such as mobility. In contrast, the programme in Turkey particularly seemed to focus special attention on providing knowledge, understanding and skills in *teaching* mobility skills (through a specific module in the programme). Since there was no additional support professional with specific training in the area of mobility in Turkey, it seemed reasonable that the programme focused more attention on activities related to teaching mobility skills.

As noted in 'Chapter 2: Literature Review', 'regardless of the terminology, the notion of an additional or expanded core curriculum is clearly linked with the broad notion of independence' (McLinden et al., 2016, p.182). Therefore, in order to gain an insight into how the programmes in Turkey and England prepare VI teachers for their roles in developing and promoting independence, the means of the respondents in the two countries in relation to some of additional/expanded core curriculum areas were compared/contrasted (see Table 6.7). This

comparative analysis illustrated that there was no significant difference between the opinions of the respondents in Turkey and England in relation to their learning regarding some additional/expanded core curriculum areas throughout their training (p>0.05). However, the results illustrated that the respondents in England (n=60) held more positive views about their training in relation to the principles and practices associated with transition of learners with vision impairment than the respondents in Turkey did (n=136) (p<0.05).

To what extent have you increased your knowledge, understanding and/or skills in relation to:	**Mean**		**MD**	**SE**	***p* level**
	T *n*=136	**E** *n*=60			
The principles and practice of habilitation, mobility, orientation, and independent living	3.32	3.18	0.14	0.11	.188
Low vision devices to make effective use of functional vision	3.10	3.12	-0.01	0.12	.908
How to help learners with VI to develop effective social and emotional skills	3.06	3.00	0.06	0.12	.635
The principles and practices associated with successful transition for learners with VI	2.79	2.82	-0.32	0.14	.018*
A variety of ICT hardware and software to support pupil's learning	2.68	3.00	-0.03	0.13	.812
Total	**2.99**	**3.02**	**-0.03**	**0.09**	**.717**

Table 6.7 Comparison of means of the responses regarding 'additional/expanded core curriculum areas' in Turkey (T) and England (E). **Note:** Rating scale is from 1 (not at all) to 4 (to a great extent). MD: Mean difference; SE: Standard error; *p* level reported to three decimal places; *statistically significant=p<0.05.

Sapp and Hatlen (2010) propose the following three-pronged approach in order for VI teachers to develop ECC skills of learners: (1) adequate instruction in the areas of ECC in the personnel preparation programmes, (2) baseline standards regarding what first-year VI teachers should know, and (3) continuing professional development in relation to improving teaching skills in ECC (p.344). Considering the VI teachers' views in both countries, this analysis particularly suggested that continuing professional development for VI teachers (e.g. in-service training) may be useful in order for them to improve their skills in *teaching* braille.

As the previous section presented, in relation to developing and promoting learners' independence, the VI teachers in Turkey mostly understood their roles as *direct* teaching to

improve the independent [daily] living skills (ILS) of the learner. In line with this, it seemed that the role of VI teachers in developing ILS of learners was conceptualised in the programme in Turkey as a *teaching* role. It also seemed that ILS areas were mostly conceptualised in relation to mobility, self-care skills, cooking and dressing skills in Turkey. In fact, the literature widely recognises the importance of developing ILS as part of the additional/expanded core curriculum including a wide range of aspects regarding independence, such as personal hygiene, food preparation, dressing and money management (e.g. Allman and Lewis, 2014). Indeed, as Hatlen (1996) states, the independent living skill areas in the ECC can be explained as 'all tasks and functions people perform according to their abilities in order to live as independently as possible' (p.34).

This comparative analysis suggested that the notion of 'independence' was conceptualised differently in the programmes in Turkey and England. For example, it appeared that the participants in Turkey understood the notion of developing 'independence' as mostly *teaching* ILS (including mobility). However, the findings of this study suggested that the term of 'independence' was conceptualised in a broad way in England, including developing the independent learning skills of learners ('learning to access' skills). In particular, some of the participants in England emphasised developing the self-advocacy skills of learners as a part of their role in relation to developing and promoting their independence. Similarly, drawing upon research which took place in England and Wales, Douglas, Hewett and McLinden (2019) identify several ways young people with vision impairment can self-advocate, including 'explaining their vision impairment, requesting and explaining required adjustments and addressing problems' (p.155). Likewise, the findings of this study suggested that developing learners' self-advocacy skills, including explaining their vision impairment and their required adjustments to other people within new settings, was emphasised in England.

Despite the differences between the approaches of the two programmes, this comparative analysis suggested that both programmes had some similar approaches in delivering training in relation to preparing trainees for their roles in developing and promoting independence. For example, both programmes provided training in relation to independent living skills of learners with vision impairment using VI simulations/blindfold techniques. As stated in the previous two chapters ('Chapter 4' and 'Chapter 5'), this was deemed very useful by most of the participants in both countries for enabling VI teachers to have an understanding of people with vision impairment.

However, using disability simulations (including VI simulations/blindfold techniques) to prepare teachers/professionals to work with people with disabilities has raised some debates in the literature and some arguments against it have arisen. These arguments can be broadly summarised as follows: (1) it does not simulate the experience of having a disability; (2) it does not bring positive change towards disability; and (3) it only considers the 'deficit' aspect of disability by disregarding the 'social' aspect of disability (see, for example, French, 1992; Kiger, 1992; Barney, 2012). Despite all these arguments in the literature, this analysis suggested that using VI simulation/blindfold techniques might be useful for preparing trainees who will work learners with vision impairment for their roles in relation to developing and promoting independent living skills (both at *proximal* and *distal* levels).

To sum up, in relation to the roles of VI teachers in developing and promoting the independence of learners, the following key points for the both programmes emerged through this comparative analysis (summarised in Table 6.9):

- The notion of 'independence' was conceptualised differently in the programmes in Turkey and England. While the programme in Turkey seemed to be focused upon mostly *teaching* ILS, the notion of 'independence' seemed to be conceptualised in the

programme in England in a broad way, which included 'learning to access' skills and self-advocacy skills.

- The programme in Turkey appeared to focus great attention upon providing knowledge, understanding and skills in relation to ILS (in particular to mobility) compared to the programme in England. This seemed to be reasonable for the programme in England when considering the role of additional support staff.
- There was no significant difference between the opinions of the respondents in Turkey and England (i.e. VI teachers and trainees) in relation to their knowledge, understanding and/or skills regarding additional/expanded core curriculum areas that they acquired throughout their training (except the principles and practices regarding transition process).
- Using VI simulation/blindfold techniques in the programmes was deemed useful for preparing trainees who will work with learners with vision impairment in relation to their roles in developing and promoting the independent living skills of learners in both programmes (both at *proximal* and *distal* levels).

6.2.2.3. Partnership working (with families and/or professionals)

In order to explore the opinions of the programme stakeholders regarding their training in terms of their partnership working roles, the respondents (i.e. VI teachers and trainees) were asked to rate their training considering their roles with people *around* the learner, including families and other professionals. As seen in Table 6.8, the results illustrated that there was no significant difference between the respondents' opinions regarding their training in terms of partnership role in Turkey and England ($p>0.05$). However, the results illustrated that the respondents in Turkey held more positive views about their training considering their roles with families (i.e. providing families with data/information and providing advice/guidance for families) than the respondents in England (both questions, $p<0.05$).

How well did your training prepare you to be able to:	Mean		MD	SE	*p* level
	T *n*=136	E *n*=60			
Collaborate with other professionals to contribute to the assessment of development of pupils	2.68	3.73	-0.06	0.14	.682
Provide key stakeholders (including parents/carers) with data and information on the progress of the learner	2.94	2.47	0.48	0.13	.000*
Provide advice and guidance services by working in partnership with parents/carers	2.92	2.62	0.30	0.13	.022*
Work with specialist services and agencies that work with learners with VI	2.50	2.73	-0.23	0.13	.069
Raise awareness of vision impairment among peers, teachers and other staff	2.96	3.05	-0.09	0.13	.510
Advise stakeholders (e.g. MoNE, DfE) on issues relating to the educational needs of pupils with VI	2.46	2.35	0.11	0.15	.471
Total	**2.74**	**2.67**	**0.08**	**0.11**	**.431**

Table 6.8 Comparison of means of the responses regarding 'partnership working' in Turkey (T) and England (E)**. Note:** Rating scale is from 1 (not very well) to 4 (to very well). MD: Mean difference; SE: Standard error; *p* level reported to three decimal places; *statistically significant=$p<0.05$.

With respect to the preparation of VI teachers for their partnership working role, it appeared that these results showed a similar pattern with a previous study which was conducted in Turkey (see Kesiktas and Akcamete, 2011). The findings of the study indicated that the collaboration and professional development skills of VI teachers 'seem to fall a little behind other professional skills' (p.122). Similarly, the opinions of the respondents in Turkey (i.e. SETs and trainees) relating to their learning about partnership working throughout their training seemed to fall a little behind other areas (as reported in 'Chapter 4').

As the previous section illustrated, the VI teachers' conceptualisations of their roles with other people *around* the learner (e.g. families and other professionals) in Turkey and England differed from each other in many ways. For example, while the VI teachers in Turkey reported their roles with families mostly as changing the attitudes of families towards disability (as part of 'family training'), the VI teachers in England reported this role mostly as involving families in

the process of developing the independence of the child at home. In line with this, it seemed that the programmes in Turkey and England had different approaches to the partnership role of VI teachers with families.

More specifically, this analysis illustrated that the programme in Turkey provided training for partnership roles of VI teachers with families in an explicit way – mostly through a specific module in the programme (i.e. 'family training and guidance'). In contrast, the programme in England appeared to aim for preparing trainees for their partnership roles with families in a blended way. Therefore, the VI teachers who participated in interviews in England mostly reported that their training did not provide them with 'specific' knowledge, understanding and/or skills regarding their partnership working roles with families. However, they reported that gaining knowledge and understanding regarding vision and vision impairment throughout their training enabled them to provide advice to families and other professionals. Further, some participants in England (i.e. QTVIs and tutors) recognised a possible positive impact of enquiry-based learning (EBL) activities on the partnership roles of VI teachers.

In Turkey, practicum experiences and case scenario activities were viewed as useful by some of the participants (i.e. SETs and tutors) for preparing VI teachers for their partnership role with families. As indicated in 'Chapter 4', the VI teachers who participated in interviews in Turkey mostly appeared to believe that their pre-service training was helpful for their roles regarding 'family training'. However, the tutors who participated in interviews in Turkey did not believe that most of the trainees applied their learning regarding 'family training' into practice. This was because it seemed that rather than providing advice and guidance for families, the role of VI teachers with families was conceptualised in the programme mostly as 'family training', which included systematic strategies for teachers.

As noted in ‘Chapter 2: Literature Review’, the literature widely highlights the importance for VI teachers of having ‘disability-specific’ knowledge, understanding and skills, such as understanding the visual system and the educational implications of vision impairments (e.g. Lomas, 1997; Allman and Lewis, 2014). This was emphasised not only for their roles within the *proximal* system of the learner but also for their roles within the learner’s *distal* systems. For example, Allman and Lewis (2014) highlight the importance of VI teachers having knowledge of the educational impact of vision impairment on the learner’s development for their informational and collaborative roles with other professionals, who may have a limited understanding of vision impairments. As stated in ‘Chapter 5’, it appeared that the VI teachers in England mostly believed that their training provided them with knowledge regarding vision and vision impairments and this was very useful for their advisory roles both with families and with other professionals. In line with this, consistent with the literature, this analysis illustrated that having knowledge and understanding regarding vision and vision impairment enables VI teachers to prepare for providing advice and guidance for families and other professionals.

Consequently, as summarised in Table 6.9, in relation to the roles of VI teachers regarding partnership working in both countries, the following key points were emerged throughout this comparative analysis:

- There was no significant difference between the opinions of the respondents (i.e. VI teachers and trainees) in Turkey and England regarding their learning on the partnership working role throughout their training. However, in comparison with the respondents in England, those in Turkey held more positive opinions regarding their training in relation to preparing them for their roles with families.
- The approach of the two programmes in relation to preparing trainees for their roles with families seemed to have a number of differences, including their delivery contents and delivery methods. For example, while the aim of the programme in Turkey was to

provide trainees with knowledge and understanding regarding their roles with families explicitly (mainly through a specific module regarding 'family training and guidance'), the aim of the programme in England was to prepare VI teachers for their roles implicitly (mainly through providing specialist knowledge and understanding regarding vision and vision impairments).

- Gaining knowledge and understanding regarding vision and vision impairments (e.g. the anatomy of the eye, types of vision impairments) throughout their training was viewed as useful by most of the VI teachers in England to be able to provide advice, guidance and support for people *around* the learner (e.g. family members, other professionals). However, no participant in Turkey recognised the importance of VI teachers having specialist knowledge and understanding of vision and vision impairments.

Key roles of VI teachers		Programme content focus & delivery approach	Conception of the role
Facilitating access to curriculum	**Turkey**	• Related to curriculum areas at primary grade level (e.g. maths, science) • Practicum experiences of teaching a curriculum subject	➢ Major role/function of VI teachers ➢ Proximal level (i.e. teaching)
	England	• Building upon previous competencies in teaching *specific* curriculum area • Providing specialist knowledge in the area of VI • Visiting teaching placements • EBL activities	➢ Part of the role/function of VI teachers ➢ Proximal and distal levels (i.e. teaching and advising)
Developing and promoting independence of learners	**Turkey**	➢ Preparing *how* to teach ILS – a specific focus upon mobility • Practicum experiences of teaching ILS • VI simulations/blindfold techniques	➢ *Teaching* ILS – a specific focus upon mobility ➢ Proximal level (i.e. teaching the learner)
	England	• Providing specialist knowledge in the area of VI • Training for an awareness of ILS • EBL activities • VI simulations/blindfold techniques	➢ Encouraging the learner to promote their ILS ➢ Providing the learner with independent skills so that they can develop their agency ➢ Proximal and distal levels (i.e. advising the learner and advising others)
Partnership working (with families and/or professionals)	**Turkey**	• Mostly in an explicit way – through a specific module regarding 'family training and guidance' • Case scenario activities • Practicum experiences (video-based)	➢ Priority is given for advisory role with families ➢ Advisory role mostly as 'family training' ➢ Changing attitudes of people within the close systems (e.g. family members, staff in the school) towards disability
	England	• Blended in the programme • Providing specialist knowledge in the area of VI • Visiting teaching placements (using reflections of trainees) • EBL activities	➢ Developing and promoting independence within other settings (e.g. home) ➢ Reducing the social barriers both in close and remote systems ➢ Enabling other people to have an understanding of VI

Table 6.9 Summary of similarities/differences between the approaches to roles of the VI teacher in the two programmes

Conclusion

This chapter firstly explained the conceptual framework of the comparative inquiry of the study. It then addressed the two research questions of the study by comparing/contrasting the findings from Study-1 (Turkey) and Study-2 (England). In relation to the first research question, the chapter illustrated a broad picture of how the concept of 'independence' was understood at *proximal* and *distal* systems of the learner in Turkey and England through discussing similarities and differences between the VI teachers' conceptualisations of their roles within *micro-*, *meso-*, *exo-*, *macro-* and *chronosystems* in both countries. Accordingly, this comparative analysis suggested that there was a narrow understanding of developing and promoting the independence of learners with vision impairment in Turkey compared to England.

This chapter provided an insight into similarities and differences between the conceptualisations of the learner and the VI teacher in Turkey and England. It illustrated that the VI teachers' conceptualisations of their roles were very much linked to how they perceived the *developing* child. According to this, it seemed that the VI teachers in Turkey (SETs) did not perceive the child as an 'active agent' who contributes to their own development, as was the case in England. The comparative analysis also illustrated that there were a number of differences between the VI teachers' understandings of their partnership roles with families in the two countries. This analysis implied that this role was conceptualised mostly in terms of as changing the attitudes of families towards disabilities as part of 'family training' in Turkey rather than providing support and guidance for families.

The chapter addressed the second research question by discussing similarities and differences between the programmes' approaches to the similar key roles of VI teachers (i.e. facilitating access to the curriculum, developing and promoting learners' independence and partnership

working). The findings of this study indicated that the programme in England had a holistic approach to the distinctive role of VI teachers through acknowledging the interwoven nature of the role of VI teachers. Therefore, it appeared that the programme in England aimed to provide specialist knowledge in the area of vision and vision impairments (e.g. understanding of the vision and the visual processing) in order to prepare trainees for their roles within *proximal* systems (e.g. facilitating curriculum access) and *distal* systems of the learner (e.g. providing information and advice for families). Thus, this chapter demonstrated that the respondents in England (i.e. QTVIs and trainees) were far more positive towards their programme about the areas in vision and vision impairments than the respondents were in Turkey (i.e. SETs and trainees).

Although this study was designed using mixed-methods approach by giving equal weight for textual and numeric data (as explained in 'Chapter 3: Methodology'), the textual data analysis has dominated the overall findings of the study. There were two main reasons of this. Firstly, the results of questionnaires were analysed using largely descriptive statistics techniques due to inadequate number of respondents in both countries. For this reason, numeric data analysis provided very limited evidence regarding the programme stakeholders' opinions about VI teacher training programmes in both countries. Secondly, the interviews enabled analysis of the views of VI teachers and tutors regarding the programmes and the roles of VI teachers in both countries, whereas the questionnaires only enabled to analyse the opinions of VI teachers and trainees regarding their training. Therefore, in terms of the purposes of this study, interviews have been a richer/greater source of data in comparison to questionnaires. Nevertheless, although it was certainly weaker, the numeric data offered some triangulation with the textual data. Therefore, while the numeric data perhaps did not standalone with any great confidence, however, it could be argued that it added considerably to the study as a whole and was worthy of inclusion.

In general, the chapter illustrated the link between conceptualisations of VI teachers' roles and the approaches of the programmes to those roles in Turkey and England. In line with the similarities and differences between the two countries, which were discussed in this chapter, the final chapter of thesis will address the following final research question of the study: 'What can be learnt from the VI teacher training programme in England for the Turkish context?'

CHAPTER 7

CONCLUSION

Overview

This final chapter addresses the following overarching research question of the study through a reflection on the study findings:

- What can be learnt from the VI teacher training programme in England for the Turkish context?

The chapter then reflects on contributions of the study to theory, methodology and practice respectively. It ends by discussing strengths and limitations of the study as well as providing some suggestions for further research.

7.1. Addressing the overarching research question

The findings of this study provided an insight into how the concept of the VI teacher was constructed in the VI teacher training programmes in Turkey and England by analysing the views of the programme stakeholders (i.e. VI teachers and tutors) in both countries. It also provided some evidence in relation to how well these programmes worked from the points of view of the programme stakeholders in both countries (i.e. SETs/QTVIs, trainees and tutors) by analysing their views/opinions regarding the programmes. Since one of the broad aims of this study was to 'learn from the foreign example in order to improve the situation at home' (Phillips, 2006, p.284), it was assumed that an analysis of the English context might contribute to improving educational provision for learners with vision impairment in Turkey by providing

suggestions for VI teacher training in the country. This section, therefore, considers how the following overarching question was answered by this study:

- **What can be learnt from the VI teacher training programme in England for the Turkish context?**

The findings of the study provided an insight into how the notion of the VI teacher was conceptualised in the VI teacher training programmes in Turkey and England by focusing on the role/function of VI teachers in both countries. As 'Chapter 6: Discussion' presented, the findings of this study identified both similarities and differences between the VI teachers' conceptualisations of their roles in these countries. In particular, using Bronfenbrenner's theoretical model as a conceptual lens, this study not only provided a holistic insight into the role of VI teachers within inner and remote systems (i.e. *proximal* and *distal* systems) in both countries, but also it revealed how VI teachers' understandings of their roles were linked with their conceptualisations of the learner. For example, by putting the learner at the centre of the analysis, the findings suggested that while the learner was conceptualised in England as an active agent who contributes to their own independence, the learner was constructed in Turkey as an agent who needs to be taught to be independent. This was because while the notion of independence seemed to be mostly understood as relating to *teaching* independent living skills (ILS) in Turkey, this concept seemed to be considered relating to *developing* independence in a broader way in England, including developing self-advocacy skills and providing 'learning to access' skills.

By using Bronfenbrenner's theoretical model as a conceptual lens, this study also provided an insight into how VI teachers' potential interrelations within inner and remote systems were conceptualised in Turkey and England. As 'Chapter 6: Discussion' illustrated, the findings of this study suggested that VI teachers in England (particularly those working as peripatetic

teachers) might establish more 'complex' connections and relations within and between major settings of the learner compared to VI teachers in Turkey. In relation to development within the *mesosystem*, Bronfenbrenner (1979) argues that:

> 'The developmental potential of settings in a mesosystem is enhanced if the role demands in the different settings are compatible and if the roles, activities, and dyads in which the developing person engages encourage the development of mutual trust, a positive orientation, goal consensus between settings, and an evolving balance of power in favor of the developing person [HYPOTHESIS 28]' (p.212).

In accordance with this, the implications of this study can be used to provide recommendations in order to enhance the potential development outcomes of learners with vision impairment in Turkey. For example, opportunities may be provided for VI teachers (i.e. SETs) working in GRCs to take similar roles to those of peripatetic VI teachers in England (i.e. QTVIs), such as providing advice for schools through direct communication with teachers/administrative staff, or arranging visits for the learner to their next school setting.

With respect to the interconnections of VI teachers with other people *around* the learner, this study particularly provided an insight into how the partnership role of VI teachers with families was conceptualised in Turkey and England. As stated in 'Chapter 4: Finding and Analysis (Study-1)', the findings suggested that although most of the VI teachers who participated in interviews in Turkey recognised the importance of their partnership roles with families, some of them reported a number of negative attitudes of families towards disabilities as a *barrier* to learners' participation. In line with this, the findings of this study demonstrated that the partnership role of VI teachers with families in Turkey was mostly considered as a role that entailed 'training' for families particularly in order for them to change their attitudes towards disabilities (i.e. teacher-centred approach). However, this role was conceptualised in England as a role that required providing advice, support and guidance for families particularly in order for them to develop and promote the independence of the learner (i.e. learner-centred approach).

In relation to developing the role of teachers as agents of change in the context of social justice and inclusion, Pantic and Florian (2015) state that:

> 'Inclusive practice requires the collaboration of teachers and others such as families and other professionals. Agents of change work purposefully with others to challenge the status quo and develop social justice and inclusion' (p.333).

In line with this, the implications of this study can be used to provide recommendations in order to help strengthen the collaboration of families with teachers in Turkey. For example, the terminology relating to the role of VI teachers (i.e. SETs) with families in teacher training programmes and policy documents (e.g. legislations, official reports) may be shifted from family 'training' to family 'support' in order for VI teachers to conceptualise families as 'enablers' to the learner's participation in education and society (as in England).

This study also revealed that VI teachers in Turkey and England had a number of different understandings regarding vision impairments and the educational implications of vision impairments. As 'Chapter 4: Findings and Analysis (Study-1)' illustrated, the SETs working in GRCs reported that they mostly provided advice and guidance for the learner according to their *levels of vision* (i.e. 'low vision' and 'blind'). However, the VI teachers in England mostly recognised the importance for their roles of having knowledge and understanding regarding the educational implications of different *types* of vision impairments (as 'Chapter 5: Findings and Analysis' demonstrated). The implications of this study, therefore, can be used to provide recommendations for the Turkish context. For example, it can be recommended that Special Education Teacher training programmes in Turkey should provide comprehensive training regarding vision and vision impairments, including the educational implications of different *types* of vision impairments.

The findings of this study also demonstrated differences between the processes of decision-making regarding the learner in Turkey and England. As stated in 'Chapter 6: Discussion', in accordance with the explicit forms of *macrosystems*, the importance of learners and their

families' participating *as fully as possible* in the decision-making process was highlighted in England (e.g. SEND Code of Practice). However, the explicit forms of *macrosystems* in Turkey (e.g. Special Education Service Regulation) did not recognise the importance of the participation of learners in the decision-making process and recognised a limited participation of families in the process. In line with this, this study illustrated how *distal* systems had an influence on the role of VI teachers within the *proximal* systems of the learner. Therefore, in order to develop the self-agency of learners and strengthen collaboration with families and teachers, the *full* participation of learners and their families in the decision-making process may be emphasised in official documents (e.g. laws, legislations) in Turkey.

Although some participants in Turkey (mostly the tutors) shared their views in relation to the reunited SET training programme within the scope of this study, this study did not provide useful evidence for which delivery method of training would be more effective in preparing teachers to provide specialist educational support for learners with vision impairment. Nevertheless, this study emphasised the necessity of specialist training for VI teachers. As Florian and Spratt (2013) point out, '[inclusive pedagogical approach] does not reject specialist support but encourages its delivery to be more sensitive to the associated, unintended, negative outcomes' (p.122). Considering this, in line with recent studies in the literature (e.g. McLinden et al., 2016; 2017a; 2017b), this study provided some insights into how the role of VI teachers was conceptualised as 'agents of change' in the VI teacher training programme in England. The implications of this study, therefore, can be helpful for the Turkish context for reconceptualising the role of SETs as 'agents of change' in order to 'remove structural and cultural barriers to learning and participation' (Pantic and Florian, 2015, p.334) of learners with vision impairment. Accordingly, the role of SETs who will provide educational specialist support to learners with vision impairment in Turkey can be conceptualised as 'agents of change' as follows:

- The role of SETs *should* be conceptualised as reducing potential structural, environmental and cultural barriers to participation for learners within and beyond the school setting. Rather than constructing the role of SETs only within one setting throughout one limited time frame, the role of SETs *should* be expanded within more than one setting and more than one time period in the learner's life course.
- The role of SETs in developing independent living skills *should* be considered as a part of the role of promoting the independence of learners. By considering the concept of independence in a comprehensive way, the role of SETs *should* include developing the independent learning skills and self-advocacy skills of learners.
- The role of SETs *should* be shifted from 'training' families to 'supporting' families in order to strengthen the collaboration of families with SETs. Therefore, the terminology relating to the role of SETs with families in teacher training programmes and policy documents (e.g. legislations, official reports) *should* be revised.

It was also considered that the implications of the study could be helpful for the Turkish context in relation to Special Education Teacher training programmes. For example, it can be recommended that SET training programmes *should* provide trainees with comprehensive knowledge, understanding and skills in relation to vision and vision impairments in order to improve the specialist support that they will provide for learners with vision impairment. However, it seems somewhat ambiguous how the current SET training programmes in the country will provide this specialist training. In line with this, it may be recommended that *specialist* teacher training in the area of vision impairment education in Turkey can be provided in a two-year postgraduate teacher training programme through distance education for Special Education Teachers who are already working with learners with vision impairment (in some ways similar to the programme in England).

7.2. Contribution of the study

By investigating the VI teacher training programmes in Turkey and England, this study provides some valuable insights for both country contexts in relation to the field of VI education. By analysing the views/opinions of programme stakeholders regarding the VI teacher training programmes, this study also provides useful evidence for decision-makers regarding the programmes in Turkey and England. Further, this study also contributes to practice in the area of VI teacher training as well as to the research field in the area of vision impairment education. This section, therefore, discusses the contribution of this study respectively to theory, methodology and practice.

7.2.1. Theory

This study contributes to the research field of vision impairment education by applying Bronfenbrenner's theoretical approaches towards human development (i.e. 'Ecological Systems Theory' and the 'Bioecological Model of Human Development') to the field by focusing on how the VI teacher training programmes' approach to the role of VI teachers in Turkey and England. This study, therefore, contributes to studies that examined the distinctive role of VI teachers in England using Ecological Systems Theory (McLinden et al., 2016) and the Bioecological Model of Human Development (McLinden et al., 2017a; 2017b) by presenting perspectives of the programme stakeholders towards VI teachers' roles *with* learners and with people *around* the learner.

This research brings an innovative discussion on the concept of the VI teacher and their specialist teacher training within the concept of 'inclusion in education [which is] associated with social inclusion' (Norwich, 2014, p.495). It emphasises the importance of specialist teacher training in the area of vision impairment education by presenting the views of the programme stakeholders in two countries. For example, it particularly highlights that providing knowledge, understanding and skills in topics regarding vision and vision impairments should

be the key element of teacher training programmes for preparing teachers for their specialist roles both within the inner (i.e. *proximal*) and remote (i.e. *distal*) systems of the learner. As Florian and Spratt (2013) state, '[inclusive pedagogical approach] does not reject specialist support but encourages its delivery to be more sensitive to the associated, unintended, negative outcomes' (p.122). This study, therefore, brings attention to the importance of preparing VI teachers to provide specialist support for learners with vision impairment in order to reduce potential structural and environmental barriers to their participation within the context of an inclusive pedagogical approach.

This study also presents the potential role of VI teachers in reducing 'internal' and 'external' barriers to the participation and learning of learners with vision impairment. As Norwich (2014) argues, 'external' barriers and a number of 'internal' barriers to participation and learning can be adjusted. In line with this, the study implies that VI teachers may reduce 'internal' barriers to participation and learning through developing the self-agency of learners, such as promoting their self-advocacy skills. It also suggests that VI teachers may reduce 'external' barriers through raising awareness of issues affecting people with vision impairment in wider society. Hence, this study contributes to the research field of vision impairment education by identifying the approaches of the VI teacher training programmes to the distinctive roles of VI teachers in reducing 'internal' and 'external' barriers to participation and learning by learners with vision impairment.

7.2.2. Methodology

This study is an international comparative-case study using the 'theoretical framework approach' (Ritchie, Spencer and O'Connor, 2003) in the data analysis process. It demonstrates that this approach can provide a consistent language and structure for data interpretation in international comparative studies. It also illustrates that when researchers are 'committed' to

using a theoretical framework as a conceptual lens (in this case Bronfenbrenner's theoretical perspective), this approach can facilitate them with 'rigorous and transparent data management such that all the stages involved in the "analytical hierarchy" can be systematically conducted' (ibid. p.220). This is because this study provides an example of how the theoretical framework approach benefits the investigation of the complexity and multi-dimensional aspects of the roles of VI teachers.

7.2.3. Practice

This study provides useful evidence for programmes that deliver teacher training in the area of vision impairment education from the perspectives of VI teachers working in a variety of settings regarding *what works* for their educational practice. It, therefore, presents useful insights for informing the practice of VI teacher training programmes. For example, this study implies that enquiry-based learning through case studies and video-based learning may be useful techniques/methods for preparing trainees for their future professional roles. Similarly, the findings of the study suggests that disability simulations (i.e. VI simulations/blindfold techniques) may be a useful technique/method for VI teacher training programmes, in particular to provide trainees with knowledge and understanding relating to the mobility and independence needs of learners with vision impairment. Therefore, by analysing the VI teachers' views regarding their roles and their training, this study provides useful implications regarding the delivery techniques/methods of VI teacher training programmes.

This study also provides a number of implications for the delivered content of VI teacher training programmes. For example, it highlights the importance of continuous in-service training (or refresher training) for improving the skills of VI teachers in braille in accordance with previous studies in the literature (e.g. Wittenstein and Pardee, 1996; Amato, 2002; Keil, 2004). With respect to developing competencies of VI teachers in braille, this study also

emphasises that rather than providing only knowledge, understanding and skills in relation to braille, VI teacher training programmes also should provide trainees with knowledge, understanding and skills on how to *teach* braille.

Although this study did not provide any evidence regarding the effectiveness of delivery types/designs of VI teacher training programmes (i.e. campus-based vs. distance learning), it provides useful insights regarding the strengths and limitations of different approaches of training programmes (i.e. undergraduate vs. postgraduate training). For example, this study suggests that when trainees already have knowledge and skills in teaching a curriculum subject, this might be of benefit in providing them with knowledge and understanding of how to facilitate curriculum access in this subject in accordance with the needs of learners with vision impairment. Therefore, this study implies that postgraduate teacher training (as a continuing professional development) might benefit teachers preparing for their future professional roles as VI specialist teachers.

In relation to the delivered content of VI teacher training programmes, this study suggests that major priority should be given to providing knowledge, understanding and skills in topics regarding vision and vision impairments (e.g. the implications of different types of vision impairments). This is because this study particularly demonstrates that the knowledge, understanding and skills/competencies of VI teachers regarding vision and vision impairments have an influence on their roles at both *proximal* and *distal* levels within the learners' *ecosystem.* In line with this, the study provides a contribution to practice through emphasising the importance of the classification of teachers as *vision specialist teachers* in order to meet the distinctive/unique needs of learners with vision impairment. As Norwich (2013b) states:

> 'The classification of children's difficulties in learning into categories has played a key role in the history of special education provision. […] Categories are the basis for parents who group themselves into specific voluntary organisations to promote the interests of a specific group of children. […] Service administrators and managers use categories to

> monitor and plan additional educational provision, while teachers are prepared professionally and have their professional identities in terms of categories. Without some system of categories or a position about the place and function of categories, there would be no system of special or additional education, as we know it' (p.55).

This study highlights that VI teacher training programmes should prepare teachers as *vision specialist teachers* in order for them to provide specialist support for learners with vision impairment through reducing potential cultural, structural and environmental barriers to their participation. With regard to inclusive practice, the study particularly emphasises that VI teachers should consider their role as a dynamic process in the active learner's lifespan, which includes their participation within the multi-settings of the *active* learner. Therefore, it places attention on the importance of the role of VI teachers in reducing potential cultural, structural and environmental barriers to learning and participation of *all* learners. As Florian and Spratt (2013) state:

> 'Inclusion is not viewed as passive, being "done to" certain groups of children, but as a dynamic process that involves all children in the life and learning of the school' (p.122).

7.3. Final reflections

This study provided valuable insights regarding the concept of the VI teacher in Turkey and England by presenting an overview of the approach of one teacher training programme for the role of VI teachers in each country. Rather than simply revealing what the roles of VI teachers were in Turkey and England, this study attempted to provide a holistic insight regarding the approaches of the programmes to the role of VI teachers within *proximal* (close) and *distal* (remote) systems of the learner in both countries. By demonstrating similarities and differences between the approaches of VI teacher training programmes in Turkey and England, the findings of this study helped to identify the concept of the VI teacher in each country and enabled issues to be addressed relating to educational support provided by VI teachers in both countries. In particular, since there was no previous comparative study carried out to compare Turkey with

any other country in the area of vision impairment education, this study provided valuable evidence for practice in this field in Turkey.

Further, Bronfenbrenner's theoretical model of human development helped to provide a holistic insight into the role of VI teachers in both countries through focussing upon the role of VI teachers *with* the learner and with other people *around* the learner. By putting the learner at the centre of the analysis, the study also helped to illustrate how the learner with vision impairment is conceptualised in Turkey and England. Through comparative inquiry, this study, therefore, provided an insight into potential structural, environmental and cultural 'barriers' to the participation of learners with vision impairment in education and society in both countries.

Although using Bronfenbrenner's theoretical model of human development helped to identify the complexity of the role of VI teachers *within* and *between* different systems of the learner in Turkey and England, this gave rise to a range of limitations to the study. For example, by using his theoretical model, this study assumed that VI teachers *always* have an important influence on the development of the learner. However, as McLinden et al. (2017b) highlighted, Bronfenbrenner's model 'may not be effective in situations in which the learner does not accept the [VI] specialist teacher's involvement' (p.581). Therefore, this study did not provide a fully comprehensive insight into potential developmental outcomes of the interconnections of the VI teacher with the learner.

Furthermore, although both of Bronfenbrenner's theoretical approaches towards human development were applied in this study (i.e. 'Ecological Systems Theory' and the 'Bioecological Theory of Human Development'), as Tudge et al. (2009) state, his theory was treated 'as though it only related to person-environment relations' (p.202). This study, therefore, provided limited insights into interrelations within the *ecosystem* of the learner, demonstrating 'one-way' insights into interconnection developed by VI teachers *within* and

between the inner and external systems of the learner. As suggested by Tudge et al. (2009), through involving each elements of Bronfenbrenner's PPCT model (i.e. Process-Person-Context-Time), a further study might investigate interrelations within and between inner and remote systems in which the learner develops with other people throughout his/her life course, such as with peers, family members, teachers or school staff, for example.

Despite all these limitations, by using Bronfenbrenner's theoretical model of human development, this study emphasised that VI teachers' understanding of their roles was highly connected with how they conceptualised the learner and other people *around* the learner. For example, by using the theoretical framework approach in data analysis process, the findings of this study provided valuable insights regarding how VI teachers constructed their roles within and between different layers of the *ecosystems* of the learner in Turkey and England. In line with this, the study helped to identify differences between some concepts regarding VI education in both countries. More specifically, for example, this study revealed how the notion of 'independence' was conceptualised within *proximal* and *distal* systems of the learner in Turkey and England through analysing the views of VI teachers regarding their roles in relation to developing and promoting learners' independence.

By focusing upon VI teacher training programmes in Turkey and England in accordance with the comparative-case study design frame, this study included only programme stakeholders' views/opinions in the two countries (i.e. VI teachers, trainees and tutors). Although learners' views/opinions were not directly involved in this study, Bronfenbrenner's ecological model of human development enabled the researcher to put the learner at the heart/centre of the analysis by illustrating the *possible* interactions of VI teachers within and between *distal* and *proximal* systems of the learner. Nevertheless, this study neither provided any insight into interrelations between the learner and his/her environment from the points of the learner, nor found out how learners perceive their environment. As stated previously, Bronfenbrenner (1979) defines

development as ‘the person’s evolving conception of the ecological environment, and his relation to it’ (p.9). Accordingly, it would not be possible to have an insight into potential developmental outcomes in the absence of direct evidence from learners (including their views). Therefore, it is important to highlight that by illustrating how VI teachers conceptualise their roles *with* the learner and other people *around* the learner in Turkey and England, this study limitedly provided direct insight into the *potential* influence of VI teachers on the developmental outcomes of the learner in these countries.

It may well be argued that particularly in line with the increase in development in inclusive practice for learners with vision impairment, VI teachers have multifaceted roles *with* the learner and with other people *around* the learner within and between different environments of the learner (e.g. peers, families and other professionals). Therefore, using Bronfenbrenner’s ecological model of human development enables researchers to examine the complexity of the multifaceted role of VI teachers *within* and *between* a range of systems. Since Bronfenbrenner’s framework provides a consistent language and structure for studies involved in two (or more) countries, researchers also might benefit from this framework particularly for carrying out international comparative analyses (as in this study). This is because using Bronfenbrenner’s framework as a theoretical lens can be useful for illustrating similarities and differences between the structures of the *ecosystems* of the two (or more) countries.

In this study, using Bronfenbrenner’s framework as a theoretical lens enabled a development of understanding of how the different layers of the social structures may have an impact on the development of the learner with vision impairment in Turkey and England. For example, analysing the role of VI teachers at the *macrosystem* level of the learner in these countries illustrated the differences of how learners with special educational needs and their families were constructed in the policy documents in the two countries (see ‘Section 6.2.1.4’). This analysis

therefore illustrated the influence of the remote systems on the role of VI teachers and in line with this, it provided an insight into the *potential* influence of distal systems on the development of the learner in Turkey and England.

However, in order to increase the utility of this framework, researchers should be aware of a number of points regarding Bronfenbrenner's theoretical model. For example, Bronfenbrenner and Evans (2000) highlight that:

> 'a proximal process involves a transfer of energy between the developing human being and the persons, objects, and symbols in the immediate environment. The transfer may be in either direction or both; that is, from the developing person to features of the environment, from features of the environment to the developing person, or in both directions, separately and simultaneously' (p.9).

Accordingly, it would not be possible to find out how proximal processes are operating within the learner's *ecosystem* in the absence of the views of learners and other people within the immediate settings of the learner (e.g. siblings, parents, peers). Therefore, in order to provide more valid insights into the interconnection between the learner and their environment, the *voices* of learners and other people within inner settings of learners could be involved in future studies in order to increase the utility of the Bronfenbrenner's framework.

As stated, the theoretical framework approach provided many advantages to the data analysis process of the study. With respect to this approach, as Ritchie, Spencer and O'Connor (2003) suggested, the researcher stayed 'close to the participants' own language and accounts' (p.257) throughout the analysis. Some of the participants' statements were presented in the thesis in order to illustrate how the researcher stayed 'close' to the participants' own languages and accounts. However, this approach gave rise to some limitations to findings of the study. For example, it provided limited insights into how VI teachers developed their professional

identities. This study, therefore, can be extended into a study using discourse analysis in order to have a better understanding of VI teachers' conceptualisations of their roles in both countries. It also can be extended into a study exploring *why* teachers become VI teachers in order to have a better understanding of the role conceptualisations of VI teachers (as conducted concerning the role of SENCos in England, see Dobson and Douglas, 2018).

By using comparative inquiry, this study also provided useful evidence in relation to similarities and differences between the VI teacher training programmes from the points of the views of stakeholders in both countries. In particular, using a mixed methods approach provided 'a fuller description and more complete explanation' (Creswell and Plano Clark, 2007, p.9) and enabled the researcher to gain 'more comprehensive evidence than either quantitative or qualitative research does alone' (Denscombe, 2007, pp.118-119). This was because analysing the VI teachers' views/opinions through interviews and questionnaires helped to identify 'how well' the programmes work in terms of the educational practice of VI teachers. Combining the opinions of trainees and VI teachers also provided comprehensive evidence regarding how these programmes work. Furthermore, analysing tutors' views led to a better understanding regarding the approaches of the programmes in both countries.

Nevertheless, this study had a range of limitations particularly due to a number of practical and methodological reasons. First, the researcher had no training to be a VI teacher either in Turkey or in England. This could be considered as a limitation of the study. However, it may well be argued that being an 'outsider' enabled the researcher to treat the cases (i.e. programmes) 'equally'. Secondly, the study was carried out in a limited time frame involving a limited number of participants in each country. Therefore, the views/opinions of the VI teachers who participated in this study may not represent views/opinions of all VI teachers in Turkey and England. The study also does not demonstrate that what the professionals say is necessarily what they do in practice. Therefore, their statements may not be reflected in the way they

actually carry out their work. In particular, considering the potential changes of the programmes over years, the views of the participants who graduated from the programmes a long time ago might not represent appropriately the current approaches of the programmes. Further studies might investigate these programmes through analysing stakeholders' views (i.e. trainees and VI teachers) regarding their training within more than one time frame (e.g. longitudinal research). Thirdly, this study had some limitation in terms of its research methods. In the study, document interrogation was conducted only to prepare main data collection tools (i.e. interviews and questionnaires). In order to gain 'deep' insight into the approaches of the programmes, a further study might analyse the two programmes' materials/documents through a systematic document analysis approach.

In spite of all those and other potential limitations, this study provides valuable insights into the concept of the VI teacher in Turkey and England. It particularly emphasises the importance of specialist teacher training in the area of vision impairment education, highlighting the distinctive role of VI teachers in reducing potential cultural, structural and environmental barriers to learners' participation in education and society. The study also provides useful recommendations for teacher training programmes that deliver training in the area of vision impairment education. It particularly emphasises that the content of these programmes to the distinctive role of VI teachers should be considered upon 'progressive, mutual accommodation' (Bronfenbrenner, 1992, p.188) between the *active* learner and the changing settings over a given time frame. This study, therefore, strongly argues that VI teacher training programmes should provide teachers with specialist knowledge, understanding and skills in reducing potential 'internal' and 'external' barriers in order for learners with vision impairment to achieve their full potential in life.

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APPENDICES

Appendix 1 – Ethical Approvals

Appendix 1a: Ethical Approval from the Ministry of National Education in Turkey

T.C.
MİLLÎ EĞİTİM BAKANLIĞI
Yükseköğretim ve Yurt Dışı Eğitim Genel Müdürlüğü

Sayı : 64243970-150.02-E.4364733 31.03.2017
Konu: Kübra AKBAYRAK

BAKANLIK MAKAMINA

İlgi : a) 02/05/2015 tarihli ve 29343 sayılı Resmî Gazete'de yayımlanan Tebliği.
b) Londra Eğitim Müşavirliği'nin 22/03/2017 tarihli ve 15998524-150.02-E.3856415 sayılı yazısı.

1416 Sayılı Kanun kapsamında Bakanlığımız hesabına ve adına İngiltere'de Görme Engelliler Eğitimi alanında doktora öğrenimi gören Kübra AKBAYRAK'ın, 08/05/2017 - 26/05/2017 tarihleri arasında Ankara ili Gazi Üniversitesi'nde "Türkiye ve İngiltere'de Görme Engelliler Eğitimi Açısından Öğretmenlik Programları"konulu karşılaştırmalı bir inceleme yapmak istediği ilgi (b) yazıda bildirilmiş, Türkiye'de alan çalışması yapmasına izin verilmesi, ulaşım masraflarıyla talebi halinde yurt içi ulaşım giderleri ve çalışması ile ilgili masrafların Bakanlığımızca karşılanması teklif edilmiştir.

Görme Engelliler Eğitimi alanında doktora öğrenimi gören Kübra AKBAYRAK'ın 08/05/2017-26/05/2017 tarihleri arasında Türkiye'de tezi ile ilgili alan çalışmasında bulunmasına izin verilmesini, ilgi (a) Tebliğin 6 ncı maddesi gereği burslarının yurt dışı bareminden ödenmesini, bu çalışmasıyla ilgili olarak geliş-dönüş uçak bileti ücretlerinin ve talebi halinde yurttaki belgelendirilmiş ulaştırma giderlerinin (tren ve otobüs bileti ücreti) tamamı ile tez çalışmalarının gerektirdiği malzeme ücretlerinin en çok üç aylık yurt içi bursu kadar olan kısmının, aynı Tebliğin 9 uncu maddesi gereğince Bakanlığımızca karşılanmasını Olurlarınıza arz ederim.

Sabri KIZILKAYA
Daire Başkanı

O L U R
<...>

Halil DOĞANAY
Bakan a.
Genel Müdür V.

Atatürk Blv. 06648 Kızılay/ANKARA
Elektronik Ağ: www.meb.gov.tr
e-posta: syonca@meb.gov.tr

Ayrıntılı bilgi için: Şükran YONCA
Tel:
Faks:

Appendix 1b: Ethical Approval from the University of Birmingham

Dear Professor Douglas & Dr Schuelka

Re: "An investigation into the training programmes of specialist teachers of children and young people with vision impairments in Turkey and England"
Application for Ethical Review ERN_16-1359

Thank you for your application for ethical review for the above project, which was reviewed by the Humanities and Social Sciences Ethical Review Committee.

On behalf of the Committee, I confirm that this study now has full ethical approval.

I would like to remind you that any substantive changes to the nature of the study as described in the Application for Ethical Review, and/or any adverse events occurring during the study should be promptly bought to the Committee's attention by the Principal Investigator and may necessitate further ethical review.

Please also ensure that the relevant requirements within the University's Code of Practice for Research and the information and guidance provided on the University's ethics webpages (available at https://intranet.birmingham.ac.uk/finance/accounting/Research-Support-Group/Research-Ethics/Links-and-Resources.aspx) are adhered to and referred to in any future applications for ethical review. It is now a requirement on the revised application form (https://intranet.birmingham.ac.uk/finance/accounting/Research-Support-Group/Research-Ethics/Ethical-Review-Forms.aspx) to confirm that this guidance has been consulted and is understood, and that it has been taken into account when completing your application for ethical review.

Please be aware that whilst Health and Safety (H&S) issues may be considered during the ethical review process, you are still required to follow the University's guidance on H&S and to ensure that H&S risk assessments have been carried out as appropriate. For further information about this, please contact your School H&S representative or the University's H&S Unit at healthandsafety@contacts.bham.ac.uk.

Kind regards,

Miss Sam Waldron
Deputy Research Ethics Officer
Research Support Group
C Block Dome (room 132)
Aston Webb Building
University of Birmingham
Edgbaston B15 2TT
Tel:
Email:

Web: https://intranet.birmingham.ac.uk/finance/accounting/research-support-group/Research-Ethics

Please remember to submit a new Self-Assessment Form for each new project.

Appendix 1c: Ethical Approval from Gazi University

Evrak Tarih ve Sayısı: 01/08/2017-E.28907

T.C.
GAZİ ÜNİVERSİTESİ
Etik Komisyonu

Sayı : 77082166-302.08.01-
Konu : Bilimsel ve Eğitim Amaçlı

Professor Greaeme Douglas
Birmingham Universitesi

Tez danışmanı olduğunuz, Birmingham Universitesi **Doktora Öğrencisi Kübra AKBAYRAK'ın** tez çalışması olan ***"Türkiye ve Ingiltere'de Görne Engelliler Eğitimi Açısından Öğretmenlik Programları Üzerine Bir İnceleme"*** adlı tez çalışması ile ilgili konu Komisyonumuzun **25.07.2017** tarih ve **07** toplantısında görüşülmüş olup,

İlgilinin çalışmasının Üniversitemizde yapılması planlanan yerlerden izin alınması koşuluyla yapılmasında etik açıdan bir sakınca bulunmadığına oy birliği ile karar verilmiş ve karara ilişkin imza listesi ekte gönderilmiştir.

Bilgilerinizi rica ederim.

e-imzalıdır
Prof. Dr. Alper CEYLAN
Komisyon Başkanı

Araştırma Kod No: 2017-314

Ek:1 Liste

Appendix 2 – Participation Information Sheets and Consent Forms

Appendix 2a: Participation information sheet for the interview

Participant Information Sheet

Research Title:	An investigation into the training programmes of specialist teachers of children and young people with vision impairments in Turkey and England
Researcher's Name:	Kubra Akbayrak
Researcher's Status:	PhD Student / School of Education
HREC Approval Number:	ERN_16-1359
E-mail:	[redacted]

Description of the research: This research is a part of a PhD that I am currently undertaking at the University of Birmingham. This research is being conducted under the supervision of Professor Graeme Douglas, Head of the Department of Disability Inclusion and Special Needs (DISN) at the School of Education, (email: [redacted] and Dr Matthew Schuelka, Lecturer in Inclusion and Special Educational Needs at the School of Education (email: [redacted]. As a part of my PhD, I would like to investigate how training programmes prepare specialist teachers of children and young people with vision impairments in terms of their professional roles in a variety of settings. For this purpose, I am going to invite you to take part in an interview which is about the mandatory qualification training.

Benefits: This research aims to make some recommendations for improving specialist teacher training in vision impairment field in Turkey and England. It is hoped that the findings of the research will provide evidence for decision-makers and policy-makers in the two countries to develop practices for specialist teacher training in the area of vision impairment.

Risks: There are no reasonable foreseeable risks to you of participating in this research.

Time involvement: Interviews will last approximately between 30 and 45 minutes.

Participants' rights: Participation in this research is entirely **voluntary.** If you decide to take part, you will be given this information sheet to keep and be asked to sign the consent form. If you decide to take part, you will be still free to withdraw at any time without giving a reason. Interviews will be recorded with an audio recorder for enabling me to transcript the data and if you withdraw at any stage from interview, the recorded data will be destroyed and the data will not be included in data analysis process. In addition, if you would like to withdraw from the research after conducting the interview, you can withdraw until the end of the data collection process by October 2017. Furthermore, throughout the interview, if you do not wish to answer any question, you may wish to continue with the next question.

Confidentiality and disclosure of information: All data that is obtained in this study will remain confidential – no one (except the researcher and the project supervisors) will have access to the data. The data will be disclosed only with your permission. By signing the consent form, you will have given your permission. In addition, anonymity will be preserved in the release of the findings for the participants. Participants will be identified by their institution since the name of the programme of University of Birmingham will not be anonymised. However, any identifiable information will not be included in data transcription and analysis process. In order to ensure anonymity of participants, they will be referred as using codes such as, QTVI-1, Tutor-1E, etc. The data collected from the interviews will be used for the completion of my PhD thesis. Any information will be used in a way that you cannot be identified.

Data storage: The data from the interviews (including voice records) will be kept safely on a secure University PC which is encrypted by the IT team at the University of Birmingham. In addition, the data will be kept safely for a minimum of ten years in accordance with the data storage and retention requirements in the University's Code of Practice for Research. http://www.birmingham.ac.uk/Documents/university/legal/research.pdf.

Feedback: Should you be interested in receiving the results of the study or have any questions, please contact me at [redacted] In addition, information about the research will also be available on the Visual Impairment Centre for Teaching and Research (VICTAR) website of the School of Education, University of Birmingham: http://www.birmingham.ac.uk/schools/education/research/victar/research/index.aspx.

If you agree to participate, please sign the consent form accompanying this sheet. Thank you for your consideration.

Appendix 2b: Participation consent form for the interview

UNIVERSITY OF BIRMINGHAM

Participant Consent Form

Research Title:	An investigation into the training programmes of specialist teachers of children and young people with vision impairments in Turkey and England
Researcher's Name:	Kubra Akbayrak
Researcher's Status:	PhD Student / School of Education
HREC Approval Number:	ERN_16-1359
E-mail:	[redacted]

I have been invited to participate in an interview about mandatory qualification training for teachers of children and young people with vision impairments.

I have read the foregoing information in the participant information sheet, or it has been read to me. I have had the opportunity to ask questions and I understand that I have a right to withdraw at any stage of the interview.

I consent voluntarily to be a participant in this study.

Name of Participant…….....
Signature……...
Date (day/month/year)…….....

Thank you for your participation.

Appendix 3 – Data Collection Tools

Appendix 3a: Questionnaire (VI teachers and trainees)

UNIVERSITY OF BIRMINGHAM

Questionnaire on mandatory qualification training for specialist teachers of children and young people with vision impairment

Dear Teachers,

My name is Kubra Akbayrak and I am a PhD student at the University of Birmingham. This questionnaire is part of my study, which aims to investigate how the mandatory qualification training prepares QTVIs for working in a variety of settings with children and young people who have vision impairment, with their families/carers and with professionals who support them. The questionnaire will be **confidential** and your contribution will be entirely **anonymous.** It will last nearly **10-15** minutes to complete. **Thank you for your contribution.**

SECTION 1

Personal Information

In this section, you are being asked to answer some personal questions – please tick the appropriate option that describes you.

1. Please select your gender:

( ) Male
( ) Female
( ) Prefer not to say

2. Please select your age:

( ) 25 – 29

( ) 30 – 39

( ) 40 – 49

( ) 50 +

( ) Prefer not to say

3. How long have you been working as a QTVI?

( ) This is my first year

( ) 1 – 5 years

( ) 6 – 10 years

( ) 11 – 15 years

( ) 15 years +

4. Prior to working as a QTVI, how long have you been worked as a teacher with qualified teacher status (or equivalent)?

( ) 3 – 5 years

( ) 6 – 10 years

( ) 11 – 15 years

( ) 15 years +

5. What type of school/s do you work in? *(Please select all that apply)*

( ) Mainstream school (pre-school and/or primary level)

( ) Mainstream school (secondary level)

( ) Mainstream school with a resource base for pupils with VI (pre-school and/or primary level)

( ) Mainstream school with a resource base for pupils with VI (secondary level)

( ) Special school specifically for blind and partially sighted pupils

( ) Special school not specifically for blind and partially sighted pupils

( ) Other

If **other** please specify.....

6. Which age group of students with vision impairments do you currently work with? *(Please select all that apply)*

( ) 0-5 (pre-school level)

( ) 5-7 (primary level - KS1)

( ) 7-11 (primary level - KS2)

( ) 11-14 (secondary level - KS3)

( ) 14-16 (secondary level - KS4)

( ) 16+

Thank you for completing 'Section 1' – please continue with 'Section 2'.

SECTION 2

Mandatory Qualification Training

This section aims to understand (a) what extent you have increased your *knowledge and understanding* throughout your mandatory qualification (MQ) training; and (b) how well you have developed your *competencies/skills* throughout your MQ training.

7. Throughout your MQ training, to what extent have you increased your knowledge and understanding relating to 'vision and vision impairment'? *(Please tick the appropriate option for each question that describes your view.)*

Your knowledge and understanding in:	**Not at all**	**Very little**	**Somewhat**	**To a great extent**
7.1. the anatomy of the eye and how the visual system works?	1	2	3	4
7.2. the implications of vision impairments on physical, cognitive, emotional and social development of learners?	1	2	3	4
7.3. the principles and practices of assessing functional vision?	1	2	3	4
7.4. the specific developmental needs of learners with VI and additional or complex needs?	1	2	3	4
7.5. the current legislation and policies relating to children and young people with VI?	1	2	3	4

8. Throughout your MQ training, to what extent have you increased your knowledge and understanding relating to 'additional/expanded core curriculum'? *(Please tick the appropriate option for each question that describes your view.)*

Your knowledge and understanding in:	Not at all	Very little	Somewhat	To a great extent
8.1. the principles and practice of habilitation, mobility, orientation, and independent living?	1	2	3	4
8.2. the necessary skills for a child or young person to learn braille (i.e. pre-braille skills)?	1	2	3	4
8.3. low vision devices to make effective use of functional vision?	1	2	3	4
8.4. how to help learners with VI to develop effective social and emotional skills?	1	2	3	4
8.5. a variety of ICT hardware and software to support pupils' learning?	1	2	3	4
8.6. the principles and practices associated with successful transition for learners with VI? (e.g. future career planning, etc.)	1	2	3	4

9. How did your mandatory qualification (MQ) training prepare you relating to 'teaching and learning activities'? *(Please tick the appropriate option for each question that describes your view.)*

How did your MQ training prepare you to be able to:	Not very well	Fairly well	Well	Very well
9.1. select and use the most effective teaching approaches? (e.g. oral/aural, tactile or kinaesthetic, etc.)	1	2	3	4
9.2. adapt teaching and learning materials in an appropriate medium? (e.g. tactile diagrams, braille, audio, etc.)	1	2	3	4
9.3. arrange settings/classrooms for accessibility and safety?	1	2	3	4
9.4. use specialist equipment and technology to overcome or reduce the impact of sight loss?	1	2	3	4
9.5. make appropriate arrangements for formal assessment approaches?	1	2	3	4

10.How did your mandatory qualification (MQ) training prepare you relating to 'partnership working'? *(Please tick the appropriate option for each question that describes your view.)*

How did your MQ training prepare you to be able to:	**Not very well**	**Fairly well**	**Well**	**Very well**
10.1. collaborate with other professionals to contribute to the assessment of development of learners (e.g. speech and language therapists, educational and clinical psychologists, etc.)	1	2	3	4
10.2. collaborate with mobility specialists to design and implement mobility and independence programmes?	1	2	3	4
10.3. provide key stakeholders (including parents/carers) with data and information on the progress of the learner?	1	2	3	4
10.4. provide advice and guidance services working in partnership with parents/carers?	1	2	3	4
10.5. work with specialist services and agencies that work with learners with VI?	1	2	3	4
10.6. raise awareness of vision impairment among peers, teachers and other staff?	1	2	3	4
10.7. advise stakeholders (e.g. DfE, NCTL, etc.) on issues relating to the educational needs of learners with VI?	1	2	3	4

Thank you for completing 'Section 2' – please continue with the final section 'Section 3'

SECTION 3

Supporting strategies for facilitating curriculum access

This section aims to understand how the mandatory qualification training shapes your approach to supporting strategies for facilitating curriculum access for learners with VI. Please tick the appropriate option for each potential supporting strategy that describes your approach.

11. ***Please give your level of priority for the strategies of QTVIs for facilitating curriculum access relating to 'teaching and learning activities'*****:**

Minor=low (1) < Medium (2) < Major=high (3) < Critical=very high (4)

Supporting strategies of QTVIs for facilitating curriculum access for learners with VI:	**Minor priority <**	**Medium priority <**	**Major priority <**	**Critical priority**
11.1. Producing appropriate materials in accordance with the needs of learners (e.g. large print, braille, etc.)	1	2	3	4
11.2. Teaching learners how to make adjustments for computers to improve accessibility (e.g. teaching how to change screen resolution, etc.)	1	2	3	4
11.3. Ensuring an optimised reading environment for learners (e.g. lighting, angled desk, etc.)	1	2	3	4
11.4. Encouraging learners to make adjustments to optimise lighting for reading	1	2	3	4
11.5. Making appropriate arrangements for learners to access exams (e.g. large print formats, readers, scribe)	1	2	3	4
11.6. Encouraging learners to use technology to provide independent access to tests and examinations	1	2	3	4
11.7. Making learning environments/classrooms more inclusive for learners with VI (e.g. appropriate signage, banisters, etc.)	1	2	3	4
11.8. Teaching learners how to navigate a new environment	1	2	3	4

12. Please give your level of priority for the strategies of QTVIs for facilitating curriculum **access** ***relating to 'transition' and 'partnership working':***

Minor=low (1) < Medium (2) < Major=high (3) < Critical=very high (4)

Supporting strategies of QTVIs for facilitating curriculum access for learners with VI:	**Minor priority <**	**Medium priority <**	**Major priority <**	**Critical priority**

12.1. Providing the learner with information about future career possibilities	1	2	3	4
12.2. Providing opportunities for the learner to discuss about future career possibilities	1	2	3	4
12.3. Establishing connections with staff in next educational setting to provide information about the learner's needs	1	2	3	4
12.4. Providing opportunities for the learner to talk about his/her needs with staff in the next educational setting	1	2	3	4
12.5. Providing specialist advice and guidance to families relating to needs of learners	1	2	3	4
12.6. Involving the learner and his/her family in decision-making process	1	2	3	4

13. Please give your level of priority for the strategies of QTVIs for facilitating curriculum* access *relating to 'raising awareness' and 'curriculum policy development':

Minor=low (1) < Medium (2) < Major=high (3) < Critical=very high (4)

Supporting strategies of QTVIs for facilitating curriculum access for learners with VI:	**Minor priority <**	**Medium priority <**	**Major priority <**	**Critical priority**
13.1. Raising the awareness of peers, teachers and other staff in terms of potential barriers to curriculum access	1	2	3	4
13.2. Involving the learner in awareness raising activities with peers, teachers and other staff	1	2	3	4
13.3. Supporting school in developing and implementing policies and practice	1	2	3	4
13.4. Involving the learner in evaluating the effectiveness of policies and practices	1	2	3	4

Thank you for taking time to complete this questionnaire

If you would be interested in taking part in the second stage of this research, please leave your e-mail here: ……

You will then be invited to participate in an interview about how the MQ training prepares you for your professional roles in different settings as a QTVI. Interviews will be **confidential** and your contribution will be **anonymous**. We look forward to your participation!

Appendix 3b: Semi-structured interview schedule (VI teachers)

- **Opening/Introduction**

1. Thank you for participating. As a part of my PhD at the University of Birmingham, I am investigating how the mandatory qualification training programme prepares QTVIs for their professional roles in a variety of settings. Firstly, before we start, can you tell me about your experience about your MQ training?

- **Possible follow-up questions:**
  - When did you finish the MQ training course?
  - How long have you been working as a QTVI?
  - Can you tell me more about your previous experience as a QTVI?

- **Teaching and learning activities**

Professional role

2. Shall we start with your current professional roles as a QTVI? How do you describe your current roles in facilitating curriculum access in terms of teaching and learning activities for pupils with VI?

- **Possible follow-up questions:**
  - How do you describe your strategies in making [inclusive practice and differentiation][3] for pupils with VI?
  - How do you describe your strategies in supporting [independent learning skills] for pupils with VI?
  - Can you give me any example from your current strategies/roles?

MQ training

3. What do you think about the MQ training that you have had in term of preparing you for these roles?

4. What do you think about the impact of your MQ training on these roles?

- **Possible follow-up question:** Can you give me any example from your experience?

- **Partnership working**

Professional role

5. How do you describe your roles/responsibilities in terms of providing specialist advice and guidance for parents/carers?

[3] [square brackets] – indicate that the interviewer makes use of participant language in relation to broader concept.

- **Possible follow-up question:** Can you tell me more about your advisory role for parents/carers?

6. How do you express your roles/responsibilities in working with other staff who work with pupils with VI in the school/s?

- **Possible follow-up question:** Can you tell me more about your support and advisory role in the school/s?

MQ training

7. What do you think about your MQ training in terms of preparing you for these support and advisory roles?

- **Possible follow-up questions:**
  - What do you think about the impact of your MQ training on these roles?
  - Can you tell me more?

8. How confident do you feel in terms of providing specialist advice and guidance for parents/carers based on the MQ training that you have had?

- **Possible follow-up questions:**
  - In what aspects do you feel/do not feel confident?
  - Can you give me any example from your experience?

9. How confident do you feel in terms of working with other staff who work with pupils with VI in the school/s based on the MQ training that you have had?

- **Possible follow-up questions:**
  - In what aspects do you feel/do not feel confident?
  - Can you give me any example from your experience?

- **<u>Raising awareness and curriculum policy development</u>**

Professional role

10. What do you think about your roles/responsibilities in relation to raising awareness of peers, teachers and other staff in relation to potential barriers to curriculum for pupils with VI?

- **Possible follow-up questions:**
  - Do you arrange any activity for peers, teachers and other staff in order to raise the awareness in relation to potential barriers to curriculum for pupils with VI?
    - If yes - how? Can you tell me more?
    - If no - can you tell me why?

11. How do you describe your role/responsibility in relation to supporting the school(s) in curriculum policy development?

- **Possible follow-up questions:**

- How do you describe your role/responsibility in the school(s) in terms of developing and implementing policies and practices?
- Can you tell me more?

MQ training

12. What do you think about your MQ training in terms of preparing you for these support roles?

13. What do you think about the impact of your MQ training on these roles?

- **Possible follow-up questions:**
  - Why?
  - Can you tell me more?

- **<u>Closure</u>**

14. Lastly, in general, what do you think about the impact of your MQ training on your current professional roles as a QTVI?

15. Do you have any suggestion to develop the MQ training programme for decision-makers?

- **Possible follow-up question:** If yes - what do you want to recommend?

16. Would you like to add or ask anything?

- If yes, go on.
- If no, thank you for your participation.

Appendix 3c: Unstructured interview schedule (Tutors)

Thank you for participating. As a part of my PhD at the University of Birmingham, I am investigating how specialist teacher training programmes prepare specialist teachers in the area of vision impairment. For this purpose, I would like to ask you some questions in relation to the mandatory qualification training programme.

- ***Teaching and learning activities***

(1) What do you think about the MQ training programme in terms of preparing specialist teachers to facilitate curriculum access in relation to teaching and learning activities?

- ***Partnership working***

(2) What do you think about the MQ training programme in terms of preparing specialist teachers for their support and advisory roles in the school?
(3) What do you think about the MQ training programme in terms of preparing specialist teachers to provide specialist advice and guidance for parents/carers?

- ***Raising awareness and curriculum policy development***

(4) What do you think about the MQ training programme in terms of preparing specialist teachers to raise awareness of vision impairments among peers, teachers and other staff in the school?
(5) What do you think about the MQ training programme in terms of preparing specialist teachers to support schools in curriculum policy development?

Thank you for sharing your views.

Appendix 4 – Data Analysis

Transcription Sample

Participant: VI Teacher in a Visiting Teacher Service (QTVI-8 / VTS)

Date: 08/11/2017

Duration: [38:01]

The role within the *ecosystem*	**Transcription** (K: Researcher; P: Participant)	**Initial Concepts/Themes**	
		Role	**Training**
	K: Thank you very much again for participating. I will start with your experience. When did you finish the course? How long have you been [working as a] QTVI?		
	P: I finished the course in… it was 2012. That was I did before I actually started working as a teacher for pupils with… I actually worked as a TA in a secondary school supporting it was three pupils with very high needs, so I gained lots of experience doing that. And I thought that would be a good way forward to it. So I spent that year in that year in the school.	Previous experience	5 years ago
	K: For your current roles now. You are working as a peripatetic teacher?		
Microsystem, mesosystem	P: Yes that's right [I am] working as a peripatetic teacher. And I support pupils [not clear] to 18 [years old] myself. I myself don't work in further education but I know our service does. […]**I go into homes, I go into primary school, secondary schools, and I also go into schools with resource bases I actually spend lots of time.** I work peripatetic but I also spend time working in resource bases as well.	Current role	
	K: Can you tell me about your roles here? For example, in home or in other kind of settings…		
Mesosystem – inter-setting communications, indirect linkage,	P: **In the home, it is very much around working with parents to support them in…or understanding I mean it is a process of raising parents' awareness of their child's visual impairment. I use**	Providing families with advice for promoting independence of	

multi-setting participation Exosystem	**quite lot the development journal to help sort of working with parents to give them ideas of activities to help play and development. But I also link as well with any of the nursery schools that the children go to. So it is a sort of trying work and sort of developing raise awareness. It tended to do more formal training in the nursery provision it is sort of informal** but also there is a formality behind it to help parents to… **It is support them to understand the impact of their child's visual impairment. It is also to have them understand the process.** Because behind it is the process are moving forward into the different provisions and also the educational health care plan process as well. So you sort of raising awareness on different levels that makes sense?	their child at home Leading families to nursery schools Raising awareness of families in order them to understand the impact of vision impairment Providing training for other teachers to raise awareness	
	K: Yes, in terms of placement of children?		
Mesosystem – indirect linkage	T: I mean obviously working in XX you have got quite a lot of different provisions for pupils. **So you have got mainstream which support for sensory support, you then have got primary schools with a resource provision for pupils with visual impairment and then you have got a special school in XX for pupils with visual impairments. So I am quite lucky in a way because I worked in them all so I know them all. And that helps you work with parents to**… I mean it is *bit of* a journey really of finding out the information and so I will support them […] in terms of then **I will encourage them to visit places and to talk to them you know to justify. No one [not clear] covers everything that is always a balance it is just disadvantages and advantages to which they can go so you know we will work with parents to help them raise awareness but is a little bit… it is so specialist.** And that's how I do that really for having worked in XX really and being involved in all the different provisions really. That is experience comes stands to experience. Does make sense?	Providing advice for families regarding the next educational setting	Advantages of having previous experience on advisory role

	K: Yes. I want to continue with your teaching role. Do you have any teaching role?		
Microsystem Mesosystem – inter-setting communication	T: […] **As we are involved in teaching, we are involved in skills developments around braille using the technology. But then also we went with teachers we need to understand teaching and learning because it is working with teachers to adapt their way that teaching and teaching methods**. Certainly, when you are working with a tactile learner, it is adapting the approach… **modifying the approach to teach and learning to include the tactile learner.** So they have sort of direct teaching and they knew how advising teachers as well.	Developing skills of learners in braille Teaching braille using technology Advising other teachers on modifying the curriculum	
	K: I see. In terms of direct teaching, how do you describe your roles in making inclusive practice and differentiation for pupils?		
Mesosystem – inter-setting communication Exosystem	P: […] it is differentiating in terms of the cognitive level of the pupil. **We are looking at visual impairment because it is not a learning disability, it is a barrier to learning. So we need to work with teachers to understand how that is a barrier and then take away the barriers to learning.** It is barriers to accessing a direct piece of learning material. It is a barrier to easy group work. It is a barrier to just accessing incidental learning. And it is also a barrier for easily independent navigating. **So with that sort of working with the teachers to directly take away the barriers with our skills development but then sort of work and teaching skills developing inclusive practice with our support.** So it is really difficult because it is not abstract it is not like standing up *the front* it is a bit more… it is not hidden but it is so specialist what you are doing in anyway **it is influencing, it is role-modelling, it is working with the TAs to prepare materials to take away that barrier.**	Providing information about needs of the learner to other teachers/TAs Facilitating curriculum access through providing information Advising other teachers/TAs on how to reduce barriers	
	K: In terms of supporting independent learning skills?		
Mesosystem – inter-setting communication	P: Yes, very much so. It is quite [not clear] because obviously pupils with visual impairments have a different degree of	Providing TAs with advice for developing	

	barrier depending on their provision and how that has impact. Some ways I see as a spectrum you work on a spectrum so **when you have got pupils quite young it is access to learn. Very much you working with TAs and you are working with schools and actually providing more or less direct access to keep them learning. But over time what we need to look at is that when they 18, we want them to leave school with all the skills to go out it to the world independent and understanding what they need to do to be independent. So over time you are introducing skills development to help them along that journey**. Now I am at the moment I am working with teenagers in their resource provision. But in the resource provision they do have a lot of TAs and TAs supporting lessons. **[Saying] did you get the point that process is… you have got to start with *treating* a little bit from that process**. **Because actually that pupil hasn't been as independent as we would like them to be. So they need to…and looking at what that TAs doing and why they are there and building up those skills of the pupils to be able to be in at the environment on their own and working independently.** […]	independence of the learner Access to learning and learning to access strategies considering age group of learners	
	K: What do you think about your MQ training in terms of teaching and learning activities?		
	P: Do you know… **I don't think it really prepared really for that.** I think that comes out… we had one assignment which was to do with the teaching and learning. **I have got my understanding of teaching and learning from my experience of teaching and learning from mainstream and then understanding the barriers and sort of putting those together.** I think I hadn't have been the experience of teaching and learning as probably come from my mainstream experiences and then I have been able to have a great understanding. **Yes, *through* studying on the course but the actual [not clear] itself it didn't really give me… you got sort of… both areas of your knowledge and**		Not focus on preparing for teaching role Advantages of having previous teaching experience as a teacher

	experience…to me it is hard to do that without that [previous experience] really. […]		
	K: Now I will [continue with] your advisory role. You mentioned your roles with families. Can you tell me more about your specialist advice [advisory] role for parents? Do you have any role in special settings?		
Mesosystem – inter-setting communication	P: I don't have at the moment. I mean… in some ways… I don't actually link with parents often really. I think the reason is because we have such a big caseload and you do have to think where do I put the time where do I get the impact. **To be honest, probably that's the area I meet parents at EHC meetings.** When pupils are in settings, I don't really meet them very often you know once they are in setting. **I am working with parents of pre-school pupils, yes… because I visit at the home.** And then quite often when you have got a pupil who has got complex needs **you work with an early support teacher.** That's about… **sort of we do a lot of input and it is the early support teach do all of input in raising awareness of the journey and the different provisions.** So me at the moment I don't do a lot of parent contact unless it is the EHC meetings. **Like I go into primary schools I don't have a lot direct contact only with meetings at the schools.** Again in secondary school, I am meeting parents as part of EHC.	Meeting families as part of EHC plans Collaborating with early support teachers	
	K: In these meetings, what do you do?		
Mesosystem – inter-setting communication, inter-setting knowledge	P: […] If you have got a pupil who has got visual impairments, straight visual impairment, you have obviously report from ourselves you usually get educational psychologists involved. […] **Within the plan you set up… you have got section where it says the story, the pupil's story. So you get his story to be involved.** And then you would be looking at any needs they have got sections **where you have got pupils' views, parents' views and you have got other sections which is about special educational needs.** They got it around cognition and learning, communication and interaction, social	Collaborating with other staff through EHC plans Making sure that voices of students and families are included in the process Advising families about the next educational setting	

	interaction and emotional wellbeing, sensory and physical needs. So what you do is to track through that to look all what they do well, what their needs are. And then you track through again you start to say **what targets we want to work on to help them progress so you have quite involved the plan**. […]. **Quite a lot of meetings so you have to meet with the parents and the school and any other professionals you need to be involved. And then you get quite involved draft to get forward for an assessment and what works for the parents because obviously it is about their pupils.** […] **So if I am working with pupils in primary, which I am doing at the moment, you know I am thinking future for them and thinking yes actually do they doing fine in mainstream I would like to… the parents to have choice around the provision.** […] They have got freedom they can look at mainstream with support from sensory resource provision depending on the level of need. So I have sort of work a lot with parents with that. Once it is set up, and once the pupils in the right provision, **it is some ways you retreat and you meet parents once a year to say ok is it still going well, do we need to change this and you take it's a journey and it is always changing depending on you know how the pupils growing up how their learning is going.** […] What do we need to put in place to support there? Again you have got quite involved meetings I say year-5 because you then start to look at what is the future provision for these pupils **so you have got certain years which are more involved in.**	Involving in meeting with families for advising them about the next educational setting	
	K: I will continue again with your advisory roles. How do you express your roles working with other staff, including classroom teachers in mainstream settings?		
Mesosystem – inter-setting communication Inter-setting knowledge	P: It is very much our role is… **we are working really closely with a range of other professionals really closely. We could not do our role in isolation.** All the time you are close. **When you are working with little ones, say pre-school,**	Collaboration with other professionals depending on the age of the learner, including early	

	pupils with complex needs because quite often you get visual impairment and then you do lots of work with early support teachers then in terms of tracking through you have got quite lots of work with educational psychologists. When you in the primary setting, you are working very very closely with **class teachers**, the **SENCos** and any of professionals, **physios**. So you are working quite closely then. When you get into secondary, you are working quite closely, something changes slightly, and you can work with obviously **the teachers, the careers officers** sometimes **councillors.** […]	support teachers, educational psychologists, class teachers the SENCos, physios, careers officers, councillors	
	K: Can you give me any sample [example] about these roles? For example, for classroom teachers, what kind of advice do you give?		
Mesosystem – inter-setting communication	P: Okay. I will just take one pupil because it so involved. I have just recently. I have worked with teenagers and **I have one teenager I am working with whose got her eye condition's Glaucoma and now is having a really profound [not clear] she has medication has *to drugs*. So I am working in the school I am working closely with these staff for staying medically [not clear].** This girl has had operations so she has been at school for two weeks no more than that actually she came to the school for two days and then she has been away because she has had to have operations. She came back to school last week. In preparing for her to come back to school […] so, **I had been having meetings with XX to around mobility and around resources and around provision. So to get everything in place for this pupil I have had to say 'she is coming back to school her sight is significantly *in deteriorated* so she is not able to find a way around the school' so I have had set up with the mobility lot of liaising with sorting out to all have mobility.** I actually had to change like all the timetables within the school with the TAs to have to have TA support for the first couple of weeks so she can start that been working with teachers so we can find	Providing information about the needs of the learner in the school Making sure that the learner has right provision in the school Liaising with other staff for meeting the distinctive needs of learners	

	out what sort of work we can support within her personal study to help her catch up. […] and now this pupil is in year-13. So I have been liaised very directly the pupil and I will looking at transition to university **so it is like layer upon layer area. It is advising but actually it is a lot liaising and trying to... put… getting support in place but I have got to advise on the support that's needed because of the very specific needs of the pupil because of visual impairment.** […]		
	K: How confident do you feel in terms of your advisory roles?		
Mesosystem	P: I am probably… most of the time I feel quite secure in it… I have to say just sometimes… through my life I think in some ways **I probably feel reasonably confident but that is because yes I am not a young person. I have had worked in NHS so I gained a lot of experience with this type of work within the NHS. I have got background from that you know where I was involved in GP practices… quite used to this sort of type of work when I was in teaching.** You know over my life I got, you know, experiences… but I have to say occasionally even no - **because pupils are so individual and the impact of their visual impairment can be just very sudden, quite complex and its layers around there is a medical aspect in it, there is social and emotional aspect, there is their learning and all these things. Also you know the challenge around… trying to sit down and reflect upon which is the best way forward even that you have got so much time you always have got limited resources to actually heal that you are doing the best advice to help that person move forward.** I sometimes think this is difficult one. For instance, if you have got pupil who has relied on using technology not done any braille because that's been their choice but then they get to the situation where their vision has *deteriorated* to the extent where they got to move from using their vision to be either *screen user* or a braille user at age when, you know, there	Challenges in advisory role	Advantages of having previous experience in advisory role Feeling confident due to experience rather than training

	are gonna not at the school is no very much longer and all the challenges around keeping up there education it is like… I do sometimes quite myself really challenging… I mean I am quite lucky because I work in a good team and what you tend to do is you will say you know this is where I am. You are *forced* [not clear] with wrong people because some ways there is absolute right or wrong that's difficulty isn't it? […]		
	K: How do you describe your training in terms of these advisory roles?		
Mesosystem	P: **I think it is difficult one because I think advisory is… it is not the course did do it**… […] **I think in some ways what was good about the course it is set up [not clear] framework for you to have discussions with colleagues and in setting up the framework for you to have the discussions with colleagues sort of how preps in form that process**… you know one of two assignments. **But in terms of the advisory role, I think that builds through experiences, really**. **Within this role, I do think experience counts a lot. The actual course gives you information on that this is how you use that information and I actually think it depends on what sort of service you really in because I think that has quite impact.** I am quite lucky because I have worked in one authority and I did my course I was working in a big service joint service. […] so I worked with 9 teachers, very very experienced teachers, half of them retired now. **So for me the course… it was the context that I was in the time I was working with very very experienced teachers and I think what the course lack is that give you the framework for discussion and sort of dialectic discussion and I had a very very good support.** So I worked there then I came to XX which is again very big service. Sort of have been quite lucky because I got a layered experience, really.		The importance of experience in advisory role Exchanging ideas with the colleagues in the programme Gaining limited knowledge from the programme
	K: You have already mentioned but I wanted to ask again. How do you describe your roles in terms of raising awareness		

	about visual impairment among peers, other teachers?		
Exosystem	P: Depends on the context we do lots lots of things. I mean you **are having a lot ongoing specialist with the SENCo you are actually doing training, you are doing peer workshops**, **and you are working directly with pupils quite often I speak to pupils and they have no understanding of what they don't even know sometimes. So I try to work with parents to sort of help them understand and suggest they to speak to… the consultancies you know… you just help them to start that process so they have to understand**. I think it is really important. It is age-appropriately information. So as they are getting older I am having more involved discussions because **I do think it is important they really understand how their visions are.** […] **So we had this phrase 'raising awareness' and when you actually start analyse means, it is not easy.**	Organising training sessions with other professionals, peer workshops for raising awareness Encouraging the learner to speak with their peers for raising awareness	
	K: For peers also, is it same?		
Exosystem	P: In some ways for me I think it is actually for the pupils to help raise awareness with their peers. [….] **You can do some quite nice activities where I [not clear] alongside the pupils who was sharing what they did on their braille notes.** So that is a raising awareness in a different way and that was an age-appropriated, you know. I know I have got pupils who want to share about their vision because they say their peers don't know because they don't wear any glasses or anything like that. That is helping them to understanding about how they are going to explain and then they do some peer workshops.	Organising peer workshops for raising awareness Encouraging the learner to speak with their peers about their learning ways	
	K: Last question is about your roles in supporting schools in curriculum policy development?		
Exosystem	P: I don't really get involved too much. I am involved with the resource base where there is about the policy development and that sort of things. Because SENCos have sort of involvement and if I am honest **I don't really get involved its schools with**	No role for curriculum policy development	

	that with their policy development around. […]		
	K: In general what do you think the impact on your training in those roles?		
Exosystem	P: I suppose it is interesting because it is very very specialist. And we do have… it is a little bit **you have got the knowledge**. I think we do go out and do training for teachers and you know, they will be like 'vow you know this is been absolutely great' but what we know is we are working in little box areas [and] raise awareness in that box. What is quite difficult and something will working hard is how to such a specialist area to raise awareness generally. Because the difficulty you have it has been no incidence I think it is like a [not clear] to just raise awareness beyond. **I actually do think we should be working with teacher training,** and actually being… **you know visual impairment and hearing impairment tend to sit in its own it is very very specialist. I do think there is a need to have it as a specialist because it is quite specialist but also I think you need to have been involved more in initial teacher training and like say through the SENCo training…** so it is as part of inclusive education development around that yes it is very specialist but it is also… you know… […] **Yes, we are very experienced teachers and we have obviously to do our role well with got to be sort of conscious of teaching and learning inclusive practise, ideal learning environments sort of good practice around teaching and learning to accommodate, you know pupils with challenges. So I do think we can take that experience forward and emerged that experience within them all, you know in SENCo, training and in those teacher training. I think that way we would raise awareness better generally.**	Training sessions for other professionals Challenges for raising awareness of others Need for role as part of ITT	
	K: Thank you very much. Would you like to add anything?		
	T: No, it was interesting.		
	K: Thank you.		