TIJSEG

ISSN: 1300 – 7432
www.tijseg.org

Turkish International Journal of Special Education and Guidance & Counseling 2017, volume 6, issue 2

THE HISTORICAL DEVELOPMENT OF THE ECC AND WHY WE NEED IT IN TURKISH EDUCATION SYSTEM

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Abstract
Like every child, children with visual impairments have the right to access education and become fully independent individuals. However, vision is one of the most essential senses to access information. Therefore, children with visual impairments face significant challenges in accessing information and participate into educational activities. This leads to a number of barrıers for people with visual impairments in becoming fully independent individuals in everyday life . The aim of this paper is to provide an overview of how vision influence children with visual impairments, how they should be educated and what they should be educated about. This discussion leads on a further discussion if an additional curriculum, apart from the national curriculum, is needed for students with visual impairments in Turkey. Therefore, an overview of important developments in creating the Expanded Core Curriculum (ECC) in the USA is provided. Moreover, this paper will give an overview of each ECC area and discuss why the ECC is crucial in education and everyday life of people with visual impairments in Turkey.
Key words: Expanded Core Curriculum, Visual İmpairment, Turkey

INTRODUCTION

First of all, it is crucial to consider ‘in what ways can the learning needs of children with visual impairments be considered distinctive?’ Of key significance in addressing this question is an understanding of the role of vision in a child's learning experiences, as well as an appreciation of the potential impact of impaired vision for learning and development (Hatton, 2014; Douglas & McLinden, 2005; Webster & Roe, 1998).

HOW VISION CAN INFLUENCE LEARNING

It is widely accepted that vision plays an essential role in acquiring and linking different types of sensory information during learning and development (Douglas & McLinden, 2005; Hatton, 2014; Hodges & Douglas, 2005; Holbrook & Koenig, 2000; Lewis & Allman, 2014; Lewis, Savaiano, Blankenship, & Greeley-Bennett, 2014). Therefore, the existence of a visual impairment is often associated with challenges in learning (Hodges & Douglas, 2005; Lewis & Allman 2014) by causing restrictions both on the quantity and the quality of information available to individuals (Bishop, 2004; Hatlen, 1996; Lewis et al., 2014; Lowenfeld, 1973; McLinden & McCall, 2002; Sapp & Hatlen, 2010). Characteristics of visual impairment are a key influence on the degree of impact on development and learning. If the visual impairment is present at birth (congenital), it is more likely to affect development and learning than if it is acquired later in life (adventitious) (Bishop, 2004; Hodges & Douglas, 2005; Koenig & Holbrook, 2000). Therefore, “youngsters with congenital visual impairment start life without the primary sensory system that is typically used to provide contact with the environment, to understand space, to stimulate and inform movement, to understand oneself as separate from others, to reach out to others, to verify information, to receive feedback related to actions, and to provide input for developing a conceptual understanding of objects and their relationships” (Lewis & Allman 2014, p.15). Therefore, when children with visual impairment start school, in comparison with their sighted peers, they will have more limited knowledge about

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themselves, how the world is organised and how it can be acted upon (Bishop, 2004, Bishop, Hobson, & Lee, 2005; Lewis & Allman, 2014; Lewis et al., 2014; Lowenfeld, 1973).

It is also crucial to state that although a visual impairment may seem to be a devastating blow to an otherwise intact child, intervention and appropriate support can minimise the delays caused by absent or reduced vision (Bishop, 2004). For many infants with a visual impairment, the other senses are able to take over the role of vision in providing information to the brain and this strengthens the quality of information collected (Bishop, 2004). Yet this process may not happen spontaneously, therefore, educational intervention must take place to provide the experiences that encourage the use of all senses.

HOW TO TEACH STUDENTS WITH VISUAL IMPAIRMENTS: STRATEGIES?

As discussed above, within the spectrum of need created by visual impairment, a key barrier experienced by children is "access to information" in order to develop their knowledge, understanding and skills (Douglas, McLinden, Farrell, Ware, McCall, & Pavey, 2011; Hodges & Douglas, 2005). Therefore, "access to information" is one of the basic and crucial key factors for the education of children with visual impairments. Students with visual impairments require teaching strategies which offer either enhancement or alternative presentation to access information (Douglas & McLinden, 2005; Douglas et al., 2011; Douglas et al., 2012; Holbrook & Koenig, 2000; Koenig & Holbrook, 2000; McLinden & Douglas, 2013, 2014). For example, to teach the concept of horse, a Braille reader may be given the chance to feel a tactile representation of a horse (an alternative access to the curriculum content) and a low vision reader given an enhanced picture of a horse with verbal description (an enhancement of the content) (McLinden & Douglas, 2014).

WHAT TO TEACH STUDENTS WITH A VISUAL IMPAIRMENT

Douglas et al., (2011) outline the need for children with visual impairment to access visual information and how this can be achieved in two ways: (1) providing children with "accessible" material in their preferred medium (e.g. large print, Braille) or (2) teaching children "access skills" (for example, through the use of a low vision aid, or other assistive technology aids). McLinden & Douglas (2013) go on to describe these approaches broadly as:

- "Access to learning" – in which the child is provided with access to appropriate information in their preferred format so that they are able to learn about a certain curriculum area;
- "Learning to access" – in which children are provided with the necessary instruction or tools (means) by which they are able to access information independently.

Using the example of access to printed text, to offer access to learning the student would be given text in their preferred mode (such as large print or Braille); to teach access skills, they would be taught how to use a magnifier, scanner or a screen reader to access the material and learn independently (McLinden & Douglas, 2014).

The discussion so far stipulates that individuals with visual impairments need to be taught similar subjects with their sighted peers (e.g. maths, history) by making some adjustments both in teaching strategies and the way they access information. Yet it is also clear individuals with visual impairments have additional learning needs e.g. the Braille code instead of print code, and the efficient use of low vision aids to access normal print (Erin, Holbrook, Sanspree, & Swallow, 2006; Holbrook & Koenig, 2000; McLinden & Douglas, 2014). Douglas et al. (2011) indicate that a broad distinction between the mainstream curriculum (i.e. areas that require modifications in order for students to access) and additional curriculum areas (i.e. areas that require particular intervention strategies in order to develop

skills) could be very useful when considering curriculum development, design and delivery for students with visual impairments.

THE NOTION OF AN ADDITIONAL CURRICULUM

The terms "core curriculum", "national curriculum", or "academic curriculum" commonly refer to a group of subjects and courses that form the basis (core) of a particular educational plan (Bishop, 2004; Holbrook & Koenig, 2000). An academic core curriculum would generally include a native language, maths, sciences, social studies and foreign language (Hatton, 2014; Holbrook & Koenig, 2000; Lewis et al., 2014), all subjects geared towards preparing students for the national goals of an education system in their country. Since education of children with visual impairment started in France in the late 1700s (Hatlen, 2000; Lewis et al., 2014; Wiener & Sifferman 2010), it has been recognised that children with visual impairment have unique educational needs and that they need to be offered additional instruction on top of the national curriculum. For example, tactile codes (moon, Braille) have long been used as a means of accessing literacy in teaching students with visual impairments, and teaching these codes requires additional training.

The second area in which it was recognised that special instruction was needed for students with visual impairments was mobility (Hatlen, 2000; Wiener & Sifferman 2010; Wiener et al., 2010). Starting in the 1920s, guide dogs were used as mobility aids by some people with visual impairments, but they were not used by a wide population around the world. The Orientation and Mobility (O&M) field was developed further after World War Two to allow veterans who had become blind in the war to travel independently by using a cane; systematic training was delivered (Hatlen, 2000; Lewis & Allman, 2014; Lewis et al., 2014; Wiener et al., 2010). Starting in the 1960s, several O&M training programmes were established in the USA. Graduates of these programmes initially provided services only to adults but soon were employed by schools (Hatlen, 2000; Lewis et al., 2014; Wiener et al., 2010). By 1970, instruction in O&M was firmly ensconced as a required course for students with visual impairments in American schools (Hatlen, 2000; Lewis et al., 2014; Wiener, et al., 2010).

Another important improvement in the education of children with visual impairments was the recognition of children who were blinded by Retrolental Fibroplasia (Hatlen, 2000; Lewis et al., 2014; William & Silverman, 2002). This forced the visual impairment field to distinguish between students who were blind and those who were partially sighted (Hatlen, 2000). Students with less than 6/60 vision were considered blind and instructed in tactile code despite the fact that they had sufficient vision to read print. This was due to the belief that they would lose their existing vision if they used it. Natalie Barraga's (1964) landmark study changed these practices by challenging the myth that using vision would make the eyes deteriorate (Allman & Lewis, 2014; Hatlen, 2000; Lewis et al., 2014). Because of Barraga's contributions to the field and her advocacy, educators were convinced not to use "sight saving approaches" in which children were encouraged not to use their eyes so that they would not lose the little vision they had (Hatlen 2000; Lewis & Allman, 2014). In addition, Barraga developed strategies to help students use their limited vision as efficiently as possible (Allman & Lewis, 2014; Hatlen, 2000; Lueck, 2010).

After Baraga's study, development of useful optical devices (e.g. magnifiers, telescopes) and an understanding of the relationship between usage of remaining vision and further sight lost was a crucial improvement in teaching students with visual impairments (Hatlen, 2000). Although in the early 1950s students with visual impairments were rarely given optical devices (including prescribed eyeglasses), with the increased understanding of low vision and visual efficiency, even very young children started to be given glasses and optical devices to enable them to use their vision effectively in a variety of ways (Hatlen, 2000). These developments led to the need for further education when

teaching students with visual impairments, such as how to use their remaining vision at the maximum level and these new prescribed optical devices.

With the advancement of technology, new products, such as talking computers, have raised even more additional instructional areas for individuals with visual impairments. Sighted students can learn to access a computer with little instruction, but students with visual impairments need special instruction on how to use screen reader or magnification software. Overall, recognition of these distinctive needs of children with visual impairments has given rise to a number of curriculum areas which are considered to be either "over and above" the mainstream curriculum (Arter 2013), or areas which are outside the mainstream teacher's expertise (Spragg & Stone, 1997), and require input from professionals with specialist training, for example TSVI (Teacher of Students with Visual İmpairments) and O&M specialists (Douglas & McLinden, 2005). This illustrates a need for an additional curriculum in addition to the academic curriculum.

On the other hand, the education of children with visual impairment started at segregated schools. Those early schools for the blind were very selective about which students they admitted as they were the only option for educational services for most children who had a visual impairment (Allman & Lewis, 2014; Hatlen, 2000; Lohmeier, 2005): their limited resources justified their decision to prefer students with more academic potential than others (Hatlen, 2000). Yet by the late 1950s, local school programmes for children with visual impairments were growing rapidly throughout the USA (Hatlen, 2000; Lohmeier, 2006; Lewis et al., 2014). These programmes mostly placed children in general education classrooms and provided support from the TSVI in a resource room. Similarly, to segregated schools, an academic curriculum – the same as that for non-disabled students – was implemented in these mainstream schools (Allman & Lewis 2014; Hatlen, 2000; Lohmeier, 2006; Whitten & Zebehazy, 2003). These programmes were also highly selective in admitting students because they wanted to accept students who would be academically very successful in order to prove to everyone that students with visual impairments belong in mainstream schools and are able to be successful with their peers (Hatlen, 2000).

In those years, educators mostly focused on providing access to an academic curriculum because they believed that for students with visual impairments, who never attended a school for the blind, futures were bright; naturally, they would be a part of their community, and assimilated into work, education, and social life (Hatlen, 2007; Holbrook & Koenig, 2000; Lohmeier et al., 2009; Sapp & Hatlen, 2010). Nevertheless, it was soon recognised that although students with visual impairments did very well in learning academic skills and could certainly compete with, or even out-perform their sighted peers, they still faced great challenges gaining employment and in everyday life. A potential reason for this would be that crucial skills, learned by sighted students through casual observation, those necessary to live a full, satisfying life, had not been mastered by students with visual impairments (Hatlen, 2000; Lohmeier et al., 2009). Although this led to educators recognising the different educational needs of individuals with visual impairments, and attempting to meet these needs, they often failed to address the special and unique needs of students with visual impairments holistically and comprehensively (Hatlen, 2000; Lohmeier, 2009; Lohmeier et al., 2009; Sapp & Hatlen, 2010). Therefore, in 1987, in order to meet the special and unique needs of students with visual impairments, Hatlen and Curry outlined "disability-specific needs" or "unique needs" of students with visual impairments (Holbrook & Koenig, 2000). This approach placed the emphasis on the need for students with visual impairments to live independently and productively (Corn, Hatlen, Huebner, Ryan & Siller, 1995).

With recognition of individuals' additional learning needs some curricula were formulated. "Additional curriculum", "unique curriculum", "special curriculum", "extra curriculum", "blindness specific curriculum" and "the expanded core curriculum" name just a few (Bishop, 2004; Hatlen 1996;

Lewis & Allman 2014; Lueck, 1999; McLinden & Douglas 2014). According to Bishop (2004, p.113), these additional instructional areas have a threefold purpose:

- to eliminate or minimise any possible developmental delays caused by visual impairment;
- to provide a variety of supplementary and compensatory skills that enable the student with visual impairment to compete on a par with their sighted peers;
- to help students with visual impairments to realise their full potential.

In short, the need for an additional curriculum that provides "vital competencies to ensure that students can access learning, gain independence and work in a medium that suits their needs" (Palmer, 2011, p.913) is now widely accepted in western countries. The most widely accepted curriculum is the American "Expanded Core Curriculum (ECC)", which is summarised below.

AREAS OF THE EXPANDED CORE CURRICULUM (ECC)

Hatlen (1996), by using the term the "Expanded Core Curriculum" for the first time, proposed a well-structured curriculum that aimed to meet the unique educational needs of people with a visual impairment. According to Koenig & Holbrook, the term "Expanded Core Curriculum" was chosen intentionally to reinforce the idea that the additional skills taught to students with visual impairments need to be an integral and indispensable component of the core curriculum, not skills that are considered extra or for enrichment (2000). In other words, Hatlen made it clear that the skills delineated in the ECC are not alternative to the core curriculum but needed to be taught alongside the academic skills which are learned by all students (Hatlen, 1996; Hatlen, 2000; Lohmeier et al., 2009). In short, the ECC was developed in the USA, with the intention of producing academically successful individuals who are also fully able to be part of society. The ECC suggests that instruction for students with visual impairments should include all the traditional areas of academic instruction and also instruction in areas that are directly affected by a child's visual impairment (Sapp & Hatlen, 2010). A summary of the ECC components and roughly what each component covers is summarised below.

Compensatory or access skills

"Compensatory access is the ECC area often discussed first, not necessarily because it is the most important, but because it is perhaps the most critical for ensuring access to academic learning" (Allman & Lewis, 2014, p.15). "Compensatory skills refer to the skills that students with visual impairments need to access all areas of the general education curriculum at levels that are commensurate with their sighted peers" (Sapp & Hatlen, 2010, p.339). According to Sapp & Hatlen (2010, p.339) compensatory and access skills include "concept development, spatial understanding, study and organisational skills, speaking and listening skills, and adaptations that are necessary to access all areas of the core curriculum". Access skills will vary depending on the needs of each child and could include learning to use "Braille, large print, print with optical devices, tactile symbols, calendar systems, adapted sign language, or recorded materials" (Sapp & Hatlen, 2010, p.339).

Orientation and Mobility (O&M) skills

"O&M is the systematic way in which children and youths with visual impairments orient themselves to their environments and move as safely, efficiently, and independently as possible in those environments (Sapp & Hatlen, 2010, p.340). "O&M concepts begin with understanding one's own body and progress to include all the concepts that are necessary to plan a trip in rural and urban environments" (Sapp & Hatlen, 2010, p.340). "O&M instruction may address spatial awareness, body positioning, white cane skills, trailing technique, sighted guide technique, and route travel such as walking from the classroom to the cafeteria, office, or gym" (Haegele, et al., 2014, p.48).

Social interaction skills

The set of skills and concepts which we use to communicate and interact with each other in everyday life makes up "Social interaction skills" (Sapp & Hatlen, 2010). This area covers a range of abilities, including basic niceties such as making eye contact and reading nonverbal cues via body language and facial expression (Brian & Haegele 2014). It also covers complex skills such as joining a group of peers in a conversation or asking someone out on a date (Haegele, et al., 2014; Sapp & Hatlen, 2010). These skills and concepts are primarily learned by observation of other people who are engaging in social interactions (Haegele, et al., 2014), but "children and youths with visual impairments miss out on much of this incidental learning of skills" (Sapp & Hatlen, 2010, p.340), therefore, they require direct and sequential instruction (Haegele, et al., 2014; Lohmeier et al., 2009; Sapp & Hatlen, 2010) and modelling (Lohmeier et al., 2009). "Direct sequential instruction in social interaction skills will help children and youths who are visually impaired have more opportunities for social interactions and decrease the chances of social isolation throughout their lives" (Sapp & Hatlen, 2010, p.341).

Independent living skills

"Most activities of daily living, which sighted people perform without thinking, must be taught to students with visual impairments – everything from personal hygiene and food preparation to financial management and organizational skills" (Sapp & Hatlen, 2010, p.340). Often individuals without a disability can learn and execute these skills without much thought, but the majority of these tasks need to be taught to individuals with visual impairments explicitly (Haegele et al., 2014; Lieberman et al., 2014a; Sapp & Hatlen, 2010). "Some of these independent living skills are part of the general curriculum for all students, but they are not usually presented in a sequential, organised manner sufficient for students who are visually impaired or provide adequate hands-on experiences for these students" (Sapp & Hatlen, 2010, p.340).

Leisure and recreational skills

Leisure and recreational skills is another area of ECC. Sighted individuals might become interested in trying a new activity after seeing others participating, but unless they have been taught in an accessible way people with visual impairments are likely to be unaware of such opportunities due to lack of visual input (Arndt et al., 2014; Haegele et al., 2014; Lieberman et al., 2014a; Lieberman, 2012; Lieberman et al., 2014b). Therefore, "recreational and leisure skills for students with visual impairments must be planned and deliberately taught, focusing on the development of lifelong, enjoyable activities" (Sapp & Hatlen, 2010, p.340). There are many leisure and recreational activities which individuals with visual impairments could be involved in dependent upon their interests. These include: running, ice skating, swimming, bowling etc. Recreation and leisure skills which could be taught at school include sports, games, and physical fitness activities (Arndt et al., 2014; Brian & Haegele 2014; Lieberman, et al., 2012; Lieberman, et al., 2014a; Lieberman et al., 2014b).

Career education

"Career education allows students to understand different job opportunities through hands-on experience" (Lieberman et al, 2014a, p.242). Although some skills and concepts are taught to all students in vocational education, these are not sufficient for students with visual impairments. Sighted students have the very important advantage of learning about careers and work habits via observation (Sapp & Hatlen, 2010). Since students with visual impairments cannot learn through observation as easily as those with sight (Lieberman, et al., 2014a; Lieberman, et al., 2014b; Sapp & Hatlen 2010) they need to have first-hand experiences with various jobs and roles via properly offered career education (Arndt et al., 2014; Lieberman et al. 2014b). Such experiences will enable them to make educated and independent decisions regarding future employment. Career counselling, and training in job skills, would therefore fall into this area of ECC (Crudden, 2012; Lieberman, et al., 2014a; McDonnall, 2010; McDonnell, 2010; Wolffe & Kelly, 2011).

TIJSEG
ISSN: 1300 – 7432
www.tijseg.org
Turkish International Journal of Special Education and Guidance & Counseling 2017, volume 6, issue 2

Assistive technology

This component of the ECC involves selecting and teaching the use of a variety of technology devices, such as using a computer, smartphone and tablet via a screen reader or magnification. "Technology equalizes the ability to access, store, and retrieve information between sighted people and those with visual impairments" (Sapp & Hatlen, 2010, p.341). Furthermore, according to Kelly (2011), Lieberman et al. (2014b) Smith et al., (2012) and Wolffe & Kelly (2011) assistive technology makes it possible to access materials by people with visual impairment which are otherwise inaccessible. Assistive technology is therefore crucial to the success of such individuals.

Although assistive technology is often used to refer to the electronic tools that are designed to provide access to text and other learning materials, it is actually a much broader term. There are several different apps, items of software, and pieces of equipment which have been designed specifically for people with visual impairments and other tools which have been developed for general use that can also be used by individuals with visual impairments. To use the variety of software and tools in assistive technology requires many skills and these need to be taught by a specialist in the education of students with visual impairments (Kelly, 2011; Sapp & Hatlen, 2010).

Sensory efficiency skills

The sensory efficiency element of the ECC covers the training that deals with the use of any remaining vision and all other senses to enable access to information and interaction with the environment (Lieberman, et al., 2014a). "Sensory efficiency skills include visual efficiency, auditory learning, and the development of advanced tactile skills" (Sapp & Hatlen, 2010, p.341) as well as using sense of smell for access to information more effectively. "One example is learning how to use touch and smell rather than visual cues to identify one's personal possessions or one's location"; "another example is the use of hearing and the other senses to identify familiar people" (Lieberman et al., 2014a, p.244), items or shops.

Self-determination skills

"Self-determination skills" is the last area included in the ECC by Hatlen and it refers to "a person's right to decide freely and without undue influence how he or she wishes to live his or her life" (Sapp & Hatlen, 2010, p.341). To develop self-determination, students with visual impairments must be provided with necessary knowledge and experiences. Therefore, "they must learn which choices are available to them, have the skills necessary to take advantage of these choices, and be given opportunities to make age-appropriate choices for themselves" (Sapp & Hatlen, 2010, p.341). "Self-determination skills can include decision-making skills, problem-solving ability, self-advocacy, and goal setting" (Haegele et al., 2014, p.49).

THE HISTORY OF TEACHING STUDENTS WITH VISUAL IMPAIRMENTS AND CURRENT SITUATION IN TURKEY

After the demise of the Ottoman Empire, the Republic of Turkey was established at the beginning of the 1920s and the Özel Izmir Sagırlar/Körler Okulu (The Izmir Private School for the Deaf /Blind) opened in 1921 – the first institution established to serve students with visual impairments in the modern Republic of Turkey. Even though this school was established initially as a private institution, within a short period it was adopted by the Ministry of Health and Social Aid and provided education under the management of this Ministry until 1950 (Ataman, 2005; Citil, 2007; Enç, 2014). In 1950, the Izmir School for the Deaf/Blind was transferred to the Ministry of National Education (MEB) (Akkök, 2001; Enç, 2014; Kargin, 2004; MEB, 2005).

In 1951, the blind unit of the Izmir School for the Deaf/Blind was moved to Ankara and became the first school for the blind (Ataman, 2005; Enç, 2014; Kargın, 2004; Melekoğlu et al., 2009). After the

establishment of the first school for the blind in Ankara, the second, the GAP School for the Blind was established in 1968 in Gaziantep. In the 1970s several other schools for the blind were also opened, e.g. İstanbul Veysel Vardal School for the Blind (1970), İzmir Aşık Veysel School for the Blind (1972), Ankara Göreneller School for the Blind (1974) (Çitil, 2007).

Nevertheless, one of the most important issues in the continued development of Turkish Special Education was the lack of trained professionals. When MEB took over the responsibility of special education provision in 1951 there were no trained professionals in this area (Ataman, 2005; Akyüz & Kaya 2014; Enç, 2014; Küçükahmet, 2007; Melekoğlu, et al., 2009; Özyürek, 2005, 2008). As a result, Gazi University set up a Special Education Department and delivered teacher preparation training in 1952 as a two-year undergraduate programme. However, this only lasted for two years and was closed in 1954 (Enç, 2014; Melekoğlu, et al., 2009; Özyürek, 2008). In later years, the needs of teachers for students with special educational needs (SEN) were met by hiring regular classroom teachers and by offering short-term certificate programmes (Ataman, 2005; Enç, 2014; Özyürek, 2008; Senel, 1998).

In 1982, the teacher preparation role was transferred from the MEB (by stopping the certification programmes) and given to universities. In 1984 the systematic qualified SEN teacher preparation programme was re-instituted at Anadolu University. After Anadolu University, Gazi University followed by establishing an SEN teacher preparation programme which opened in 1986. The teacher preparation programme at Gazi University offered general SEN training until 1993. After 1993, students on this programme received general SEN training for two years, and then could opt to specialise in either teaching student with learning disabilities or students with visual impairments in last two years of their programme. Until 1998, only around three or four students each year chose to specialise in the teaching of the students with visual impairments (Çitil, 2007). In 1998 the SEN teacher preparation programme was divided and formed two separate programmes. The first was for teaching students with intellectual disabilities and the second was for primary teachers for students with a visual impairment. Currently, Gazi University is the only university which offers training in the area of visual impairment in the whole country. Yet, this teacher preparation programme seems to focus mostly on academic skills rather than ECC skills.

On the other hand, educational rights of children with SEN were mentioned for the first time in the 1961 in Turkey's constitution (Enç, 2014). Eres (2010) states that based on this constitution, the Primary Instruction and Education Law (no.222) which came into effect in 1962, indicated that schools and classes must provide accommodations for children with SEN. The constitution has since been updated further. In article 42 of the 1982 constitution (which is still in place) it says that "the State shall take necessary measures to rehabilitate those in need of special education so as to render such people useful to society" (cited in Nadir & Aktan 2015, p.215).

This statement suggests that the government at that time took a medical model approach as it indicates that the aim of special education is to rehabilitate, in other words, fix those who are in need by allowing to Access to academic skills. Despite gaps in legislation and a lack of implementation, the late 1990s could be described as a major period for Turkish special education because "a reorganization, reestablishment, and updating of all the governmental provisions took place" (Akkök, 2000, p.274). "The involvement of parents in the educational provisions, initiation of individualised educational programmes, importance of early intervention, and effective implementation of inclusion were major areas of emphasis in Act 573 of 1997" (Akkök, 2000, p.274).

Furthermore, the Turkish Disability Act [Engelliler Hakkinda Kanun], no.: 5378 (2005) emphasises the rights of people with disabilities and especially highlights the need for an inclusive educational environment for children with SEN. Article 15 of this Act, titled "Education and Training", states that:

"The right to education of disabled people cannot be prevented for any reason. Disabled children, youngsters and adults are provided with equal education with non-disabled people and in inclusive environments, taking the special conditions and differences into consideration" (OZIDA, 2005).

Starting in the 1990s, this new inclusive approach which embraces the social model of disability, is in contrast to the historical approach where children with disabilities and their needs were ignored in Turkish society. For instance, in the past, children with a severe impairment were regarded as individuals that could not benefit from any education (Melekoğlu et al., 2009; Özgür, 2004), and therefore, were excluded from the education system. Yet all these positive changes were solely focused on accessing the academic skills rather than the ECC and promoting independence.

According to the MEB (2015), a traditional curriculum, which is implemented in regular schools, should also be implemented in SEN schools and classrooms. Nevertheless, it also states that this should be based on the students' characteristics and needs, with adaptations being made to the curriculum without compromising it significantly. Articles 14, 15, 19, and 23 of the Turkish Disability Act (2005) state that students who have SEN are entitled to receive special educational support to assist them with achieving the aims of the school they are attending; therefore, they can receive either individual or small group instruction. For those who are of compulsory schooling age and cannot attend an educational institution, regardless of their abilities, training to prepare them as independent individuals and meet their educational needs would be offered. It is also indicating that based on their needs and desires, instruction to prepare them for employment could be offered. What is interesting is that in the legislation, independent training and transition services, which are areas of the ECC, are included for students who are severely disabled and cannot attend school; however, there is no referral to promoting independence for individuals who can attend school. One of the reasons for this might be that when the legislation was written, only students with intellectual disabilities – rather than those with other types of disabilities e.g. visual impairment – were considered severely disabled. This meant that there was an expectation that all students who do not have severe intellectual disabilities can learn to be independent via incidental learning. Yet this view misses the additional needs of students with visual impairments and means that the national curriculum does not contain a notion of an additional curriculum for students with visual impairments. Since the ECC is not included and assessed in the national accountability, teachers might see their role as teaching only the academic curriculum that they are mandated to teach rather than including areas of the ECC.

Furthermore, whilst reading through current literature regarding the Turkish context I have not encountered any term referring to an additional curriculum or the ECC. The exception is the "Destek Ogretim Programi" (support instruction curriculum). This curriculum is implemented only at PSECs (Private Special Education Centres) and includes maths, Turkish and independent living skills. Nevertheless, only independent living skills included in this programme out of the nine areas of the ECC. Moreover, only one third of the time is allocated to teaching independent living skills. Furthermore, this programme is implemented only in the PSECs and there is not any such instruction at either schools for the blind or in mainstream schools.

Although an additional curriculum has not been encountered in the Turkish context, there are a number of authors who advocate that skills such as assistive technology and O&M should be taught to pupils with visual impairment (Altunay-Arslantekin, 2015; Bayır, Keser & Numanoğlu 2010; Göl 2014; Sucuoğlu 2006; Şafak 2012). This might imply that there is a recognition of additional learning needs of students with a visual impairment, but no such curriculum has yet been formulated.

In Turkey, professional standards for TSVIs were developed by the MEB in collaboration with universities in 2008, and these standards implemented pre-service and in-service training programmes (Kesiktaş & Akçamete 2011). These standards contain five domains: communication and social skills;

modifying the curriculum; collaboration with the school, family, and other professionals; behavioural management; and getting involved in professional development activities (MEB, 2008). When these standards are examined, there is no direct reference to a concept of ECC. Among the ECC areas, only "communication and social skills" were included as areas that teachers should have knowledge on. There is no reference to other areas of the ECC including O&M, or assistive technology.

Furthermore, Kesiktaş & Akçamete (2011) collected data from 224 TSVIs across Turkey regarding competencies of TSVIs on these standards. The findings of the study pointed out that the implementation of the standard regarding social skills is ranked as the least practised. Participants' opinions concerning working in with students with visual impairments also seem critical because TSVIs claimed that they had not gained the necessary knowledge and skills to do so during pre-service training. Moreover, the results revealed that the participants suggested a number of knowledge and skill areas (including the need for more training in teaching academic and non-academic skills) to be covered in their pre-service programme. This finding indicates that participants did not believe that they acquired the knowledge and skills for working with students with visual impairments efficiently and that they were not able to practice the relevant knowledge and skills in the field.

Moreover, Altunay-Arslantekin (2015) states TSVIs who are required to have dual certification in Turkey do not master O&M skills during their preparation programme. She added this resulted in students with visual impairments not being properly taught O&M skills. Sımılar results found by İşlek (2017) regarding all areas of the ECC in Turkey. İndividuals with visual impairments stated that their educators were not fully equipped in teaching the ECC. Therefore, they couldn't receive an appropriate ECC training and, therefore, they encountered several challenges in their academic and social life including employment.

There is clear evidence that TSVI candidates are not receiving enough training regarding all components of the ECC in their teacher preparation programmes. Consequently, they start to serve students with visual impairments whilst having limited knowledge. Similarly, as discussed earlier, there is evidence illustrating that students with visual impairments are served in Turkey by educators without a specialisation in visual impairment (see Akkök, & Zelloth, 2010; Ataman, 2005; Citil, 2007; Eres, 2010; Enc, 2014; Kucukahmet, 2007; Ozyurek, 2008). Given the complexity of the TSVIs' role, responsibility and the unique educational needs of children with visual impairment, lack of expertise of educators is a serious barrier in delivering effective ECC training.

Nevertheless, the teacher preparation programme for special education teachers was modified in 2016 by Hıgher Education Council and all specialisations were unified. According to this new approach, teacher preparation programmes at universities were unified and all teacher candidates started to receive identical training in the first two years of their teacher preparation training and must choose a specialisation area in their last two years of their studies-e.g. teacher of the visually impaired, teacher of the deaf and hard of hearing. Furthermore, thanks to this new teacher preparation programme TSVI candidates are able to receive training on eight areas of the ECC (except independent living area). Yet despite of this new exciting teacher preparation approach, there is no modıfıcatıons at the schools currıcula to deliver the ECC at the Turkish schools. As illustrated in Altunay-Arslantekin (2016), İşlek (2016), Yalçın (2015) there is no evidence to suggest that the ECC training has been delivered to students with visual impairments at Turkish schools. These cause students with visual impairments to encounter a number of problems in accessing the academic currıculum. Moreover, due to this shortage of training, students with visual impairments could not be prepared as fully independent individuals. Consequences of this lack of training in ECC areas on lives of individuals with visual impairments is discussed with more details.

TIJSEG
ISSN: 1300 – 7432
www.tijseg.org
Turkish International Journal of Special Education and Guidance & Counseling 2017, volume 6, issue 2

THE CONSEQUENCES OF ECC TRAINING

For a fair education, a "level playing field" has to be created for everyone (Holmes, 1980) including students with a visual impairment. This level playing field could be experienced when the instruction and content of academic subjects is presented and assessed equally to all students (Lohmeier, 2007). Yet in order for students with visual impairments to have access to equitable educational experiences instruction cannot be restricted to the academic curriculum (Allman & Lewis, 2014; Hatlen, 1996, 2000, 2007; Lohmeier, 2007; Lohmeier et al., 2009; Olmstead, 2005; Sapp & Hatlen, 2010). Therefore, the ECC is designed to allow access to the academic curriculum and go beyond it to address areas, skills and experiences that are crucial in developing independence of people with visual impairments (Sapp & Hatlen, 2010). By focusing on these specialised skills, schools can provide opportunities which are ordinarily available to sighted students but not available to students with visual impairments (işlek, 2017), "giving them the experiences and opportunities their non-disabled peers are obtaining incidentally can assure a complete education" (Lohmeier, 2005, p.10). Without a sufficient amount of training in the ECC and opportunities to practice in real life settings, people with visual impairments anticipate facing difficulties in acquiring skills needed to be fully independent and active contributors to their communities. This section will discuss some findings from the literature regarding lives of individuals with visual impairments when they receive and/or miss ECC training.

Apart from accessing the academic curriculum and consequently, low academic achievements, one of the first consequences of not having enough training on the ECC is not being mobile without assistance. O&M instruction offers the skills and confidence to enable people with visual impairments to travel safely and independently (Dodgson, 2014; Lohmeier, et al., 2009; Sapp & Hatlen, 2010) and without these skills, individuals with visual impairments face challenges in their everyday life. For instance, people with visual impairments and their parents were interviewed about their perception of O&M by Higgins, Phillips, Cowan, & Tikao, (2009). Almost everyone agreed that O&M is very important and some of the people with visual impairments stated that a lack of O&M is disabling in everyday life and they wished they had received O&M training when they were younger. When investigating the perspectives of individuals with visual impairments regarding travelling in the UK, Douglas et al. (2006) reported that an estimated 43% of people in the UK with visual impairment would like to leave their home more often. Similarly, Pey et al. (2007) reported that 48% of their UK-based participants faced challenges when travelling by themselves. This limitation in travelling independently reduced the quality of their life.

Similarly, there is an association between lack of ECC training and isolation. Wolffe & Sacks (1997) found that individuals with visual impairments spend more time alone in their homes watching TV and listening to the radio whereas their sighted peers spend more time outside their homes. Likewise, students with visual impairments reported participating less often in recreational activities (Conroy, 2014; Lieberman et al., 2014a) which resulted in them spending more time alone. Holbrook, Caputo, Perry, Fuller, & Morgan (2009) conducted a study with 25 adults and found that adults with visual impairments are less physically active than the general adult population.

On the other hand, in a study investigating the inclusion of students with visual impairments in the UK by Worth (2013) several students reported loneliness, isolation and challenges in maintaining friendships. They reported having fewer friends and often their peers did not want to talk to them. Simply, they found maintaining friendships to be difficult and often ended up developing friendships with undesirable kids at schools. Similarly, a study conducted for the Royal National Institute of the Blind estimated that 44% of people with visual impairments reported feeling "moderately" or "completely" disconnected from people and things around them and 94% experienced some kind of restriction to participating in community (McManus & Lord, 2012). In addition, Arndt et al. (2014)

interviewed seven youths who also stressed the value of having independent travelling skills, as well as knowing practical skills (such as using a friendly tone) in order to be socially accepted.

Although proportionally as many students with visual impairments are attending higher education as their sighted peers (Ravenscroft, 2013; Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009; Wagner, D'Amico, Marder, Newman, & Blackorby, 1992), the majority of American adults with visual impairment (75%) are not employed (McDonnell, 2010; McDonnall, 2013; McDonnall, 2014; McDonnall, Crudden, & O'Mally 2015; McDonough, Stiken & Haack, 2006; Wolffe & Kelly, 2011; Wolffe, Ajuwon, & Kelly, 2013). Similar results were also found in the UK, (see Hewett & Keil, 2014; Hewett, 2015; Saunders, Douglas & Lynch, 2013) and Canada (see CNIB, 2005; Gold, & Simson, 2005; Gold, Shaw, & Wolffe, 2010). Until recent years, the situation in Turkey was even more depressing. However, thanks to Disability Act which mandated all public and private companies to hire a certain number of people with disabilities, the employment rate of people with visual impairments increased significantly since 2005. Yet, still people with visual impairment face difficulties to find and maintain employment beyond the disability quota (İşlek, 2016).

There are several different factors which might bear upon this high unemployment rate including the lack of accommodation at work, and employers being biased against people with a visual impairment, but one of the main causes is assumed to be directly linked to the lack of preparedness of individuals with visual impairments when they leave school. For instance, Douglas et al. (2009) and Douglas & Hewett (2014) found that mobility and access to information are seen as barriers to employment for unemployed people with visual impairments. In another study conducted for RNIB, Saunders et al. (2013), found that many areas of ECC (O&M, self-determination, compensatory access skills, sensory efficiency, assistive technology) have a close relationship to unemployment and readiness for employment. Similarly, in an analysis of the NLTS2 (National Longitudinal Transitional Study-2) data set Cmar (2015) found that individuals with visual impairments who mastered travelling skills were significantly more likely to be employed when they finished secondary school.

In addition, Test et al. (2009) and Wolffe & Kelly (2011) found that there is a strong correlation between social skills, assistive technology, job coaching, self-determination, O&M and independent living skills on the employment of people with visual impairments. Invitations to social gatherings were also affected. Similarly, Crudden (2012) found that social skills, independent living skills, and O&M as essential skills for successful transition of youths with visual impairments from school to employment. Moreover, Shaw et al. (2007) found that youths with visual impairment face many challenges in their daily life and when asked how they could overcome these problems 86 percent of the participants said that they needed to learn more about the ECC skills (e.g. assistive technology and advocacy skills). Clearly, the participants think the skills covered in the ECC would enhance their independence.

Based on the existing literature in the western world, it appears that if individuals finish their schooling and master ECC components, they will have a healthier transition to adulthood. In contrast, if ECC skills aren't mastered then individuals with visual impairments will face challenges in many areas of their everyday life including remaining dependent, not being able to travel independently, and experiencing barriers to their socialising and employment (İşlek, 2017). Since the ultimate aim of a high-quality education is to equip children with the skills and knowledge they need to contribute to society (Erin et al., 2006; Holbrook, 2008; Holbrook & Koenig, 2000), it is crucial to recognise the value of ECC (McDonough, Stiken & Haack, 2006) and offer training in it to students with visual impairments.

CONCLUSION

"For too many years, educators have behaved as though they were unaware of the unique and specialized needs of blind and visually impaired students" (Hatlen, 1996, p.30). Until the late 1990s, teachers did not understand the value of the ECC and did not see teaching it as part of their job description (Hatlen, 1996, 2000, 2007; Sapp & Hatlen, 2010). Therefore, for many years, they found different excuses not to teach it (Lohmeier et al., 2009; Sapp & Hatlen, 2010). This caused a modern tragedy: too many people exiting the educational system to live isolated and troubled lives (Hatlen, 1996; İşlek, 2017).

Success in school goes beyond ensuring that students are able to pass their courses and graduate from schools on time (Holbrook & Koenig, 2000; Sapp & Hatlen; 2010). "Children and youths with visual impairments deserve the opportunity to have full, rich lives that include good educations, strong social lives, meaningful careers, and the ability to live and travel independently" (Sapp & Hatlen, 2010, p.346–347) and the ECC has been recognised as a powerful resource to do this. However, the ECC still not recognised and included in Turkish Education System.

To sum up, it is clear that a notion of additional curriculum is essential in preparing individuals with visual impairments as independent individuals. However, based on the literature, it seems very little is known about the ECC in Turkey. Therefore, MEB should take the necessary measurements so that the ECC could be delivered to students with visual impairments and they could be prepared as fully independent individuals and live a satisfactory life.

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