PRE-READING OF VISUALLY IMPAIRED CHILDREN (VISUAL AND TACTILE REAL LIFE EXPERIENCE)

Summary

General assumption is that pre-reading (foundation of emergent literacy) is childhood experience, realized both in preschool or home environment. Pre-reading activities are usually organized within early intervention. Children and youth with visual impairment (both blind and partially sighed) can present delays and difficulties in the language development in areas important for development of reading skills specific to this population. Preschool visually impaired child is a future reader that needs to build the *necessary pre-reading foundation, through different early life experience. Pre-reading (emergent literacy) is a ground basis of becoming competent reader that has a good foundation for independent learning and communication. Timely decision making and choosing the primary communication (literacy) media influences educational strategies and organizational modes. Different strategies can be applied to efficiently support and encourage team approach of professionals, parents and teachers, in continuing effort to introduce* readiness *activities to infants and young children who are visually impaired or blind. Most important is to build up confidence and an enthusiasm for accessible reading in sighed adults and visually impaired children. To prepare VI child for reading, different* readiness *areas should be addressed with adequate teaching (instructional) methods. Until final decision about communication, literacy (educational) media is made – both tactile and visual reading experience should be addressed.*

The aim of this paper was to explain different aspects that affect emergent literacy of visually impaired children and may delay or result with difficulties in reading and language development. This paper will give literature overview about pre-reading of visually impaired children and different influential factors that enable child of becoming competent readers.

Key words: preschool visual impaired children, supporting pre-reading (emergent literacy), prevention of delay in language development, organizational models, applied methodology in early intervention

Introduction

There is a growing body of evidence to support the belief that the critical components of emergent and early literacy for children with visual impairments do not differ markedly from those of their sighted peers. Infants and toddlers with visual impairments and blindness require lots of interactions and early life experience (Koenig, Farrenkopf, 1997) , that support their oral language development, awareness of print or Braille, and opportunities to explore writing Erickson, Hatton (2007a, 2007b).

But, children and youth with visual impairment (both blind and partially sighed) can present delays and difficulties in the language development in areas important for development of reading skills specific to this population and effect different areas of functioning (Corley, Pring, 1993, Tadić, Pring, Dale, 2010, Shankar, Evans, Bobier, 2007) .

Many author stress importance of the early intervention (Walthes, 2005., Cormany, 1992., Fazzi, 2005., Klein, And, 1988, Simmons, , Davidson, 1985., Beelmann, Brambring , 1996) and that family, especially mothers, contributes to the growth and development of the blind child Gaston, Lucerga, Rodrigez de la Rubia (2005).

Many authors share same opinion and stress out that team approach (Walthes, 2005), professional support and additional activites in the family, help in reaching goals of the rehabilitation programs (Belyakova, 2005., Matok, 2002., Burger, 2005., Walter-Klose, 2005., Losada et. all, 2005., Steinman et. all, 2006., Stratton, 1996.)

Emergent literacy extends from birth to the beginning of formal instruction in reading and writing (Koenig, 1992; Stratton, 1996), and many author address areas of emergent liteacy (Swenson 1999, Stratton, 1996, Rex, Koenig, Wormsley, Baker, 1994). Emergent literacy is pre-reading literacy and for visually impaired children, it is critical that these skills area nurtured in home environment Day, McDonnell, Heathfield (2005). Reading stages, for both partially sighed children and blind children, tend to be similar to the reading stages children without visual impairment go through. Emergent Braille literacy includes establishing the experiential base for meaning, discovering the communication potentials of symbols and books, as well as acquiring the perceptual-motor skills for reading and writing (Drezek, 1999). To be able to decide on literacy media, some authors like Koenig, Holbrook (1991) explain that it is important to use diagnostic teaching approach is for determining the appropriate reading medium (print or Braille) of children with visual impairments. Fazzi et al. (2005) state that sensory experience from the external world can influence how the visual pathways wire themselves up after birth. Visual experience is crucial, and it is also crucial to help the child learn to integrate alternative sensory information. Sometimes, systematic program of visual stimulation is not applied, and visually impaired children usually are not provided with accessible ways to be supported in the area of early literacy. Thereby, they are not having same learning opportunities as children without visual impairment. Even when attending literacy-rich (Braille rich, adapted material) preschool classrooms, opportunities are not the same, but have specific characteristics (Sköld, 2007., Drezek, 1999). Also, for those children whose primary communication media is not Braille, or approach with dual/total communication media (Fajdetic, 2009a) is being used, teachers and parents face many challenges in supporting emergent literacy of visually impaired child. Some autors, challenge traditional approach toward literacy media for blind and integrate all approaches towards Braille, as an outcome Braille is defined as a script for blind, rehabilitation program, primary educational and communication media and curriculum Fajdetić (2009b).

Delay in determining appropriate reading medium, or lack of real life experience may result in language delays in visually impaired children.

To prevent language delays some important considerations should be made: the delivering emergent literacy intervention within larger service of early intervention (Justice et al. 2007), how pre-reading program for visually impaired children is structured (Stanchfield, 1971, McComiskey,1996) and is the literacy media selected in timely manner (Argyropulos, Sieridis, Katsoulis (2008), which instructional strategies are being used (Koenig, Holbrook, 2002, Day, McDonnell, Heathfield, 2005), methodology toward parents of the visually impaired child implemented (Grinhuis, Woudenberg, 2002), organizational models of early intervention available (Walthes, 2005 according to Ludewig, 2002, Gwizdon, 2005).

The issue

Structured early intervention and team approach with the aim of supporting pre-reading, can be important predictor of successful language development, and may result with adequate literacy skills (reading competence) later on in school and professional life. Family values and specific competences of parents and other members of the family, play important role in making immediate surrounding accessible (right literacy media). Support system (application of the organizational models of the early intervention) and methodology of the professionals in the area of supporting emergent literacy strongly affects emergent literacy of visually impaired child. In some cases, using Braille and accessible print material (adapted and optimal) for both partially sighted and blind preschool children has been significantly de-emphasized. Some children have been, unprofessionally and inappropriately restricted to print or auditory modes, or in some cases to no modes. Although these modes may be more available, accessible and fit into conventional and intuitive parenting, they may not be more efficient for accessible reading. Also, visually impaired children may not be supported through early life situations and experiences. Restrictions to particular mode (perceptive canal), lack of adequate professional support or lack of competences may result with delay in language development in children with visual impairment

Early intervention in the family of the visually impaired children

Different perspectives on intervention with young blind children tend to influence development of children Simmons, Davidson, (1985), and it is important to understand implications of different programs for children with visual impairment, one example is given by Klein, And, (1988) when describing implications of Parent and Toddler Training Project for Visually Impaired and Blind Multi handicapped.

Scientists aim finding predictors of successful development of visually impaired children, how increased support make positive shift etc. Fazzi et al. (2005) emphasis early intervention in visually impaired infants and states it is mandatory. Oslo, treatment of sensory input impairments should begin as early as possible in a positive emotional setting that enhances the child's motivation and relationship with caregivers.

Fajdetić (2005) points out that it is important to give support to the family of visually impaired children. Support to the family helps family members, and Gaston, Lucerga, Rodrigez de la Rubia (2005) state that family contributes to personal growth to children with visual impairment. This could be elaborated that, not only parents of the child are immediate family. Household can have different members of the family – grandparents, uncles, aunts, siblings etc. Therefore, family of child with visual impairment is not homogenous group. This fact hast to be strongly considered when offering activities and programs of the support Walthes (2005, Fazzi et al., 2002), since all members of the family influence dynamics with their attitudes and views what is the best approach to the child with visual impairment. Among other important factors are several ones: culture, religion, education, life style, socio-economic status. Many of those are not addressed or approached in the proper way. Even though, support in the immediate home environment, has many challenges, general benefit that visually impaired child has is without doubt, something that proves early intervention is worth investing in. However, even with timely

intervention, young children with visual impairment may have difficulty developing all needed skills.

Walthes (2005) cites O'Brien (2001) and say that it is important predictor of successful development of the blind child is early intervention. Early intervention gathers numerous programs aiming toward support of early development of visually impaired child. New approach in early intervention, imply support for the parents of the visual impaired child, who may be traumatized by this circumstance. The mothers generally bear most of the responsibility of early education of the child, and are deeply affected by new organizational, emotional and competence circumstance. Cormany (1992) presents the results of the research were development of family support services was the aim of the researched. A post-intervention survey indicated significant feelings of increased support and a positive shift in attitude by agency staff from a child-focused approach to a family-centred philosophy.

Beelmann A, Brambring M (1996) have realized research and results from a comprehensive evaluation of a home-based early intervention project for congenitally blind young children. Five full-term and five preterm blind children, who had a mean age of 12 months at the beginning of the project, were visited at home with their families every 2 weeks over a 2-year period. Results showed that an individualized, handicap-specific early intervention using different types of parent involvement (co therapist, parent counselling) could be implemented successfully. Compared with controls, developmental test data from the ages of 12 to 36 months showed an accelerating impact on the full-term children. However, no intervention effects could be found in the preterm children.

While working in the family, experts have to adjust approach, to be able to explain the specifics of the development of the child. Since partners in this process are parents, it is important to use teaching situation and well supported activities of learning, to explain the context and influence of maturation of the child with visual impairment (Grinhuis, Woundenberg, 2002).

Emergent literacy of the visually impaired child and literacy media selection

Emergent literacy is pre-reading literacy. In other words, pre-reading is common childhood experience, realized both in preschool or home environment. Day, McDonnell, Heathfield (2005) state that it is critical that emergent literacy skills are nurtured in home and early education environments. This approach ensures constant assessment, reassessment and program development. Programs created for toddlers and young preschool children, most often support is given within home environment.

As pointed out earlier, to help develop skills, important for setting ground base of the emergent literacy. To carry out complex tasks of supporting emergent literacy of the visually impaired child, team work and team approach is very important. Impact of making the right choice of literacy medium strongly influences activities of the support of the child. Argyropoulos, Sideridis, Katsoulis (2008) say, that both teachers and parents have impact on literacy media selection. In the decision making process though, children should not be left out. But, not many empirical studies combine team approach and supporting early literacy in the context of literacy media selection. Some experts do not give enough emphasis on making impact of the positive attitude on determining the appropriate medium. Some authors promote a diagnostic teaching

approach for determining the appropriate reading medium (print or Braille) of children with visual impairments Koenig, Holbrook, (1991). In the research observations are presented and it is shown how useful check list are in making decisions during two phases (selection of the medium for beginning instruction and ongoing evaluation of the initial decision).

Theoretical construct underlying process of gaining emergent literacy skills, if implemented, would facilitate the development of a home-school partnerships and interventions, and at the end would result with the increased opportunities for literacy (Craig, 1999).

Event though, it is common view that visual impairment and other related factors strongly affects emergent literacy and later on reading competence, research results Fellinius (1996), lead to conclusion that neither visual acuity, reading media, optical aids, nor reading distance were clearly related to reading competence. Rather, good readers were pupils who scored higher on verbal cognitive tests and had a greater interest in reading as a leisure activity.

For children with visual impairment early intervention with the goal of supporting early literacy, could possible diminish many hours of special education referrals later in mainstream education. So, the early intervention and support of emergent literacy is in a way prevention of the illiteracy later in life.

Parents of visually impaired children and professionals: working together as a team

Team work of the parents of visually impaired children, kindergarden teachers, VI teacher and early interventionists helps visually impaired children become literate. To be able to promote literacy, it is important to organize team approach Walthes (2005), and delegate responsibility to each member of the team, both professionals and the members of the family. Team work gives different benefits, some circumstances can make situation delicate and complicated (limited time, unnatural situation, observation of child in the therapeutic situation) and usually these situation end up in the form of advising situation, where parent is listener and the person to whom professional conclusions are presented. The parent-professional relationship is one that helps promoting the most meaningful interactions for children with special needs. Team work doesn't only imply close support and partnership relations between experts and parents. Preschool teachers also need support from experts as well. McComiskey (1996) states that early intervention teachers of visually impaired children are charged with relieving preschool teachers' fears and showing them what to do to enable potential Braille readers to flourish. If they are insecure about their own foundation and methodology, they cannot help these teachers. As a result, children miss opportunities to gain valuable experiences. We could point out that to be able to develop individual reading-training models, it is necessary for teachers to be familiar with their pupils and to maintain consistent contact with them and with their families. Such contact is especially important for younger pupils because whatever increase in the amount of reading they do will have to be outside the school environment Fellinius (1996).

The role of the parent of visually impaired child is very important, especially because of the mainstream setting, were all members of the family are involved in supporting the education of the child. Many curriculum areas borderline with specific rehabilitation programs for visually impaired, and day by day more expectation are placed upon the shoulders of the parent. Reese,

Sparks, Leyva, (2010) say that given that parents are their children's first teachers, it is imperative to consider how parents can help improve their children's language and emergent literacy development prior to formal schooling, and reviews parent-training studies of children's language and literacy in three contexts: (1) parent-child book-reading; (2) parent-child conversations; (3)and parent-child writing. Weigel, Martin, Bennett, (2010) the results revealed that the more regular the routines in the household, the more likely parents were to engage their children in literacy enhancing activities, and in turn the higher the children's print knowledge and reading interest. This was the case both initially and a year later. Results also showed that family resources and stress contributed to aspects of literacy development, although not as strongly as family routines.

Contemporary mainstream (preschool and school) setting assumes the parent is a partner in the process, with lots of knowledge and skills, with ideas of ideal and optimal approach toward integrated child. Parents and children have main role in decision making of choosing primary written communication media. After review of the literature, it can be concluded that all authors do not share same views. Salisbury (2008) minimizes importance of the parent in the process of teaching children reading and writing. As an alternative, new technologies are offered to parents, teachers and other important others.

Emergent literacy acquisition and delays in language development in visually impaired children

Different aspects of emergent literacy are addressed through contemporary research and professional publications (Sulzby, Teale, 1991 cited by Day, McDonnell, Heathfield, 2005, Drezek, 1999, Swenson 1999, Stratton, 1996, Rex, Koenig, Wormsley, Baker, 1994), developmental stages of reading process are found important (Steinman, LeJeune, Kimbrough, 2006) as well as understanding specifics of the language development Hall, Rodabaugh (1979).

According to Sulzby, Teale (1991. cited by Day, McDonnell, Heathfield, 2005) emergent literacy can be viewed as skills that are precursors to later reading and or can be more broadly conceptualized as literacy acquisition that occurs along a developmental continuum. Children and youth with visual impairment (both blind and partially sighed) can present delays and difficulties in the language development in areas important for development of reading skills specific to this population. Visually impaired child is a future reader that needs to build the necessary pre-reading foundation.

As previously elaborated, visual impairment can affect future partially sighted or blind reader with a delay (Corley, Pring, 1993, Tadić, Pring, Dale, 2010, Shankar, Evans, Bobier, 2007) or some specific in functioning. Corley, Pring, (1993) found that in processing words partially sighted children, like fully sighted children**,** used both lexical and nonlexical processing, though perhaps in difference balance. Recognition and recall of pictures by the partially sighted children was as good as that of the fully sighted children**.** Fully sighted children performed better than partially sighted children when a preceding orienting question or a following elaborative sentence was provided. Results suggest that the partially sighted children had difficulty in integrating visual and verbal information which followed too closely. How visual impairment effects reading was the purpose of the research of Shankar, Evans, Bobier (2007) where emergent literacy skills in uncorrected hyperopic and emmetropic children were compared. In this pilot study,

uncorrected hyperopic children, ages 4 to 7 years, show reduced performance on tests of letter and word recognition, receptive vocabulary, and emergent orthography and crowded VA, despite no difference in phonological awareness skills, visual cognitive skills, and other family variables known to affect the acquisition of literacy skills. The relationship between hyperopia and the poorer progress in emergent literacy is complex, and it is not clear if the relationship is causal, and whether the hyperopes will catch up to the emmetropes with time.

Visual impairment not only effects language acquisition, but effects child in the broader area of functioning, area affected with practical implementation of language skills such as socio-communicative skills. Tadić, Pring, Dale (2010) state that development of children with congenital visual impairment has been associated with *vulnerable socio-communicative outcomes*. In the research, compared to their sighted peers, and relative to their own good and potentially superior structural language skills, children with VI showed significantly poorer use of language for social purposes. Pragmatic language weaknesses were **a** part of **a** broader socio-communicative profile of difficulties, present in a substantial proportion of these children and consistent with the pattern found in sighted children with autism. So, conclusion was presented, where there are ongoing socio-communicative and pragmatic language difficulties in children with congenital VI at school age, despite their good intellectual abilities and advanced linguistic skills.

Emergent literacy – early life experience

It is important to have overall view and suggestions about creating individual visual and tactile experience for VI child, with aim to program adequate approach and support to pre-reading development. Of course, most of children with visual impairment (both blind and partially sighed) have functional vision that has to be properly addressed in early childhood. Some structured programs like Program for development of functional vision (Barraga, N.), tend to aim older preschool children (age 5 or 6), but principles of the program can be applied much earlier as well (both for blind and partially sighed children).

Although these very young children are often delayed in developing emergent literacy understandings, the path of their development is consistent with emergent literacy development of sighted children Erricson, Hutton (2007).
Emergent literacy is important foundation both for blind and partially sighted children. Even though it seem emergent literacy should be different because different perception modalities will be used when starting formal reading and writing lessons, many activities overlap and apply for both populations. Both, Koenig, Farrenkopf (1997) and Stratton, Wright (1991) stay that firsthand and real life experience is important.
For example, Koenig, Farrenkopf (1997) realize the research and results of the study identified a repertoire of early-life experiences (global experience, supporting experience, specific words and concepts) to which young children with visual impairments need to be exposed to develop a foundation for literacy. When possible, experiences should be linked with literacy events, beginning in the home and later in formal school programs.
First, authors identify that the global experiences is very important. According to Koenig, Farrenkopf (1997) the most common *global experiences* included doing or making things. Results of this research show (after analyzing 254 stories), 42 (17%) involved activities, such as looking for something, making something, painting, digging a hole, and trying to do something,

all of which were placed in the category doing or making things. Other common global experiences were experiences with friends or pretending (15%); working together, sharing, helping (10%); and looking for or finding something (10%).The analysis also yielded two areas that appeared distinct from the other ones: learning and content areas and understanding specific concepts. The global experiences in these two areas would be dependent largely on instruction, usually in (pre)school programs, whereas the others would be gained by engaging in typical daily activities. Second, authors point out *supporting experiences*. Supporting experiences are those that would be necessary for understanding a story, but were not the main focus. For any given story, there could be a number of supporting experiences that a child would need to gain meaning. Results show that, out of the 2,698 supporting experiences that were identified, 219 (8%) involved nature, plants, and/or animals in some manner, while 207 (7.6%) involved living creatures, and 207 involved emotions or a sense of well being. Thirdly, authors point out that *specific words and concepts* are important, and they explain that they are the most essential for gaining meaning from reading the stories. An interesting finding was related to the importance of understanding specific concepts. In this area, there were 912 instances (34% of the 2,698 supporting experiences) in the 254 stories in which understanding a concept was essential for gaining meaning from a story.

Stratton, Wright (1991) state, that it is a challenge to achieve enhancement in development with visually impaired children, in ways that form the foundations of literacy. Authors have stated, firsthand experiences are important in many ways. This assumption adds dimension in the context of literacy: building meanings into the stories. The second component of the foundations of literacy is language: learning words with meaning, extending word meanings, asking questions for information, and understanding the language in read-aloud stories. The third component of emergent literacy, reading aloud to children**,** is considered the most important way to prepare a child for successful reading**.** The fourth and final component of the foundations of literacy is scribbling or making a connection between writing and reading**.** Authors conclude that the development of literacy in young visually impaired children is a gradual process interrelated with development. Reading aloud to children is a primary component of literacy, along with language development, first-hand experiences, concept development, and enjoyable experiences with books. With the assistance of project advisory committee members, teachers, and parents, we have completed work on a handbook and tactile-visual storybooks designed to assist caregivers in providing, from birth, the experiences that form the foundations of literacy.

One of the most natural parent-child activities is book reading. Reese, Cox (1999) discusses about 3 styles of adult book reading for preschoolers' emergent literacy**.** A describer style focused on describing pictures during the reading, a comprehender style focused on story meaning, and a performance-oriented style introduced the book and discussed story meaning on completion. Forty-eight 4-year-olds were randomly assigned to receive 1 of the 3 reading styles over a 6-week period. Pre-tests and post-tests measured children's receptive vocabulary, print, and story comprehension skills. A describer style of reading resulted in the greatest overall benefits for children's vocabulary and print skills, but a performance-oriented style was also beneficial when children's initial skill levels were taken into account. To complement adult reading, picture books should be available for all children. Sköld (2007) describes how the Swedish production standards are set, and based on research about tactile perception and the ability of partially sighted persons to perceive colour. Accessible in the right way, these books can be enjoyed by totally blind children as well as children with partial sight. Also, the tactile picture is not a copy

of the original as details which the haptic sense can't perceive must be reduced, and colours, shadows and perspective must be changed. Tactile picture books with Braille play an important role in supporting the development of reading skills. Drezek (1999) explains that print books can be adapted to support Braille Readiness in many ways. Books can be made interesting by emphasizing sounds, singing refrains, or adding actions. Meaning can be enhanced with activities, story boxes, sensory boxes, story pillows, object calendars, puppets, and play. Tactile skills can be reinforced by adding toys, models, portions of real objects, textures, and outlines.

For blind children with functional residual vision, usage of different new technologies can help in emergent literacy and language acquisition. Miller-Wood (1990) explains how closed-circuit television system can be used with a five-year old girl with severely limited vision to develop visual skills, especially skills related to concept formation. After the end of training, the girl, in this research, could recognize lines, shapes, forms, letters, numbers, and words and could read short sentences.

Organizational models and methodology aiming towards preventing delays in language development of visually impaired children

To prevent delays in language development and support emergent literacy, well structured pre-reading program, methodology of work with parents and visually impaired children and organizational models should be combined and implemented with constant regards on treatment targets, treatment techniques, and treatment contexts. Researches often point out areas important for language development: critical areas Pester (1985), areas where structured program has effect (Stanchfield, 1971, Hall, Roadbaugh, 1979), specific strategies (methodology) for educator Day, McDonnell, Heathfield (2005), Koenig, Holbrook (2002) because only skilled and trained professional can carry out complex task of supporting emergent literacy etc.

Justice et al. (2007) gave an overview of three important considerations when delivering evidence-based emergent literacy interventions: (1) treatment targets, (2) treatment techniques, and (3) treatment contexts. Treatment targets refer to the specific aspects of emergent literacy that clinicians address within their interventions and are organized into two broad areas: code-related skills and meaning-related skills. Specific targets within each skill area are identified. Treatment techniques refer to the specific clinical approaches used to address these targets. Using the scaffolding metaphor, we differentiate between use of high-support and low-support techniques for moving children along a continuum from dependence to independence. Treatment contexts refer to the location in which intervention is provided; prevalent contexts for provision of emergent literacy intervention include classroom-based, pull-out, and home-based parent-implemented interventions.

Treatment targets, Justice et al. (2007) refer to the specific aspects of emergent literacy, and for example, Stanchfield (1971) conducted an research on the sample of children without visual impairment measure the effects of a structured pre-reading program in the specific aspects of emergent literacy. The program emphasized six types of reading skills: (1) listening for comprehension, (2) listening for auditory discrimination, (3) visual discrimination, (4) oral language skills, (5) motor perceptual skills, and (6) sound-symbol correspondence. Analysis of reading readiness test results showed that (1) experimental groups did significantly better than control groups, (2) girls as a group did significantly better than boys, (3) white children did

significantly better than Mexican-American children who in turn did better than black children, and (4) experimental groups of Mexican-American children and black children did significantly better than white control groups.

Pester, (1985) similar to Stanchfield (1971) defines Braille reading readiness of blind children, and points out four critical areas are addressed and materials offered for each: auditory discrimination, tactual discrimination, language development, and concept development.

Hall, Roadbaugh (1979) develop PREP (Preparatory Reading Program), an individualized program for teaching concepts to visually handicapped children at a pre-reading level.

Similar to Hall, Raadbaugh (1979) Steinman et al. (2006) define pre-Braille program as designed to address the need for a child to develop auditory, tactile, conceptual and language abilities before they learn how to read.

Also, pre-reading is a ground basis to make rehabilitation program fit and according to their abilities, which results in timely decision making of a primary communication media. McComiskey (1996) explains that for example, the Braille Readiness Skills Grid, is designed to help those who work with young children who are blind or visually impaired**,** that will foster Braille readiness in children who are potential Braille readers. Three intended benefits of the grid are (1) to increase parents' confidence in interventions that foster Braille reading readiness, (2) to encourage adults to engage potential Braille readers in systematic Braille readiness activities from infancy, and (3) to renew the confidence of teachers, parents, and children who are potential Braille readers and to foster the children'**s** enthusiasm for reading**.** Grid, in the systematic manner, defines activities and skills of five readiness areas: tactile, fine motor, listening and attention, concept, and book and story.

Treatment techniques, Justice et al. (2007) refer to the specific clinical approaches used to address specific emergent literacy targets. Day, McDonnell, Heathfield, (2005) emphasis importance of specific strategies that early childhood educators can use in inclusive settings to: (1) provide exposure and access to Braille and large print reading and writing materials in the classroom environment, (2) facilitate engagement in literacy activities, and (3) make curriculum modifications to support the specific literacy skill needs of young children with visual impairments. Walthes (2005. according to Ludewig, 2002.) explains different models of support to the family: 1. guidance (aiming towards rising the level of the knowledge), 2. counseling (aiming better use of all resources), 3. presence (helping in process of coping with situation),4. therapy of the family.

Treatment contexts refer to the location in which intervention is provided; prevalent contexts for provision of emergent literacy intervention include classroom-based, pull-out, and home-based parent-implemented interventions. Development of different models of support and intervention in the family of VI children and support to the family show how pre-reading in visually impaired children and importance of early intervention is perceived. Realization of all models of support is possible to within family surrounding, but also within possibilities of other organizational models.

Erickson, Hatton, Roy, Fox, Renne, (2007) investigate and conduct practical insight into the role of early interventionist in supporting early literacy development. Qualitative case study design was used to investigate the ways in which two early interventionists supported emergent literacy development for infants and toddlers with visual impairment. Three themes are addressed: (1) the importance of a family-centred approach in addressing emergent literacy in early intervention; (2) the role of the early interventionist in language and concept development; and (3) the need to focus on the senses as they relate to literacy. Conclusion is that their use of family-centred practices served to establish a collaborative relationship with parents who shared responsibility of

supporting their child's emergent literacy development. Hatton et al. (2002) defines family-centered practices as the practice that emphasizes family strengths, empowers families to make their own decisions, collaborate between the family and other professionals, and has a holistic view of the family. By establishing respectful relationships with families and by understanding and honoring diversity, early interventionists demonstrate family-centered practices. Providing support to the family in natural environments and with sensitivity to the family ecology enables parents to understand and enhance their child's abilities.

Gwizdon (2005) offers other models of intervention in the family:
(1) individual therapy of the child in home environment, with active participation of the parent (instructions how to support abilities of the child – functional vision, communication, hand manipulation), (2) therapeutic workshops organized for the family (aiming to set up networks between families with same difficulties), (3) therapeutic and methodical workshops for parents
(4) Rehabilitation camps. To explain important elements of methodology of the approach toward parents of the visually impaired child in the process of delivering support Grinhuis, Woudenberg (2002) defines: (1) an expert has to be able to help parents to express themselves, to recognize feelings, have genuine interests and empathy and give support by answering questions of the parents, (2) most important moment of starting service of support is initial contact (it is the time to define priority and needs), (3) first assumption of support with high level of professionalism and quality understands how the birth of the child with impairment affects the family and inner interaction between family members, but interaction of the family and experts (perception of the impairment), (4) an expert has to identify positive „coping" strategies of the parents, and parenting style, (5) an expert realizes support by helping the family in search of answers to important questions, (6) an expert should use all resources that family has (friends, neighbors') and is involved emotionally and help functioning family, (7) an expert should enable and help parents by organizing meeting with other parents with same problems.

Murphy, Hatton, Erickson, (2008) in the research address different areas of early literacy practices of teachers of infants, toddlers and preschoolers with visual impairment and find scientifically interesting to discuss the use of family-centred practices, promotion of communication and language development, lack of access to evidence-based resources to help and support VI teachers adapt literacy materials and support to provide comprehensive intervention in emergent literacy, lack of explicit phonological awareness instruction, limited emphasis on shared storybook reading, limited access to low vision devices and writing technology.

Conclusion

The purpose of this paper was to define (collect) and interpret existing literature (a body of recorded work) that has been produced by researchers and practitioners. The aim was to explain different aspects that affect emergent literacy of visually impaired children and can result with a delay in reading and language development. Interpretation of the relevant and up to date literature lead to the following conclusions: (1) early intervention in the family of visually impaired child supports emergent literacy, but positive outcome can be under influence of the family values, dynamics, culture, religion, socio-economic status, etc., (2) emergent literacy of the child with visual impairment is strongly influenced by literacy media selection, that should be addressed with adequate literacy media approach, (3) team approach and team work of the parents of visually impaired children, kindergarten teachers, VI teacher, early interventions and other professionals has significant role in supporting emergent literacy, (4) not properly supported emergent literacy skills (pre-reading skills) of partially sighed and blind children, could result with poor skill acquisition and delay in language development; have impact on language related skills (socio-communicative skills), (5) early life experience (global and supporting experience, and specific words and concepts) addressed through all perception modalities, help supporting emergent literacy in partially sighted and blind children, (6) well applied methodology in supporting emergent literacy in early intervention (treatment targets, techniques and context), as well as procurable organizational models are inevitable elements in preventing delay in language development.

Refrences:

Amato, S. (2006): Standards for Competence in Braille Literacy Skills in Teacher Preparation Programs, Journal of Visual Impairment and Blindness, 96, 3. Retrieved from EBSCO*host*.

Argyropoulos, V. S., Sideridis, G. D., Katsoulis, P. (2008): The Impact of the Perspectives of Teachers and Parents on the Literacy Media Selection for Independent Study of Students Who Are Visually Impaired, Journal of Visual Impairment and Blindness, 102, 4. Retrieved from EBSCO*host*.

Beelmann, A., Brambring, M. (1998): Implementation and effectiveness of a home-based early intervention program for blind infants and preschoolers. *Research In Developmental Disabilities*, 19(3), 225-244. Retrieved from EBSCO*host*.

Belyakova, N. (2005): Training of Blind Children with Complex Structure of Defect in Family, ICEVI European Conference - Conference Report, Chemnits: Sachsisches Forderzentrum Chemnitz, 495-499.

Brennan, S.A, Luze, G.J., Peterson, C. (2009): Parents' Perception of Professional Support of the Emergent Literacy of Young Children with Visual Impairment, Journal of Visual Impairment and Blindness, 103, 10. Retrieved from EBSCO*host*.

Burger, C. (2005): Support of Parents of Visually Impaired and Blind Pupils at Mainstream Schools, ICEVI European Conference - Conference Report (495-499), Chemnizt: Sachsisches Forderzentrum Chemnitz.

Corley, G., Pring, L. (1993): Partially Sighted Children: The Visual Processing of Words and Pictures. Retrieved from EBSCO*host*.

Cormany, E. E. (1992): Meeting the Needs of Parents of Preschool Handicapped Children through Increased Support Services. Retrieved from EBSCO*host*..

Craig, C. J. (1996): Family Support of the Emergent Literacy of Children with Visual Impairments, *Journal of Visual Impairment and Blindness*, 90, 3. Retrieved from EBSCO*host*.

Craig, C. (1999): Home Literacy Experiences of a Child with Visual Impairment. *Journal of Visual Impairment and Blindness*, 93(12), 794-97. Retrieved from EBSCO*host*.

Day, J., McDonnell, A. P., Heathfield, L. (2005): Enhancing Emergent Literacy Skills in Inclusive Preschools for Young Children with Visual Impairments. *Young Exceptional Children*, 9(1), 20-28. Retrieved from EBSCO*host*.

Drezek, W. (1999): Emergent Braille Literacy with Move, Touch, Read. *Journal of Visual Impairment and Blindness* 93, no. 2: 104-05. *ERIC*, EBSCO*host*

Erickson, K. A., Hatton, D. (2007a): Literacy and Visual Impairment. *Seminars in Speech & Language*, 28(1), 58-68. Retrieved from EBSCO*host*.

Erickson, K. A., Hatton, D. (2007b): Expanding Understanding of Emergent Literacy: Empirical Support for a New Framework. *Journal of Visual Impairment & Blindness*, 101(5), 261-277. Retrieved from EBSCO*host*.

Erickson, K. A., Hatton, D., Roy, V., Fox, D., Renne, D. (2007): Literacy in Early Intervention for Children with Visual Impairments: Insights from Individual Cases. *Journal of Visual Impairment & Blindness*, 101(2), 80. Retrieved from EBSCO*host*.

Fajdetić, A. (2005): Integracija učenika s posebnim potrebama, In Bilić V. et.all (ed): Izbor tema za satove razrednih odjela, Zagreb: Naklada Ljevak.

Fajdetić, A. (2009a): Procjena i programiranje rane intervencije djece oštećenog vida predškolskog uzrasta (odabir primarnog komunikacijskog i obrazovnog medija). In Cepanec, M. (ed.): 1. Hrvatski simpozij o ranoj intervenciji u djetinjstvu. Opatija: Hrvatska udruga za ranu intervenciju u djetinjstvu.

Fajdetić, A. (2009b): Brajica – pismo slijepih osoba, specifični rehabilitacijski program, osnovni obrazovni medij, komunikacijski medij ili kurikulum. U Godišnjak Hrvatskog saveza slijepih. Zagreb: Hrvatski savez slijepih.

Fazzi, D.L., Klein, M.D., Pogrund, R.L., Sacks Salcedo, P. (2002): Family Focus: Working Effectively with Family, In Pogrund R. L., Fazzi D. L.: Early focus – Working with Young Children Who are Blind or Visually Impaired and Their Families. New York: AFB Press.

Fazzi, E. E., Signorini, S. G., Bova, S. M., Ondei, P. P., & Bianchi, P. E. (2005):. Early Intervention in Visually Impaired Children. *International Congress Series*. Retrieved from EBSCO*host*

Fellenius, K. K. (1996): Reading Competence of Visually Impaired Pupils in Sweden. *Journal of Visual Impairment and Blindness*, 90(3), 237. Retrieved from EBSCO*host*.

Gaston, L. E., Lucerga, R., Rodrigez de la Rubia, E. (2005): Family: Contributing to Personal Growth of Children with Visual Impairment, ICEVI European Conference – Conference Report (str. 501-505). Chemniz: Sachsisches Forderzentrum Chemnitz.

Gringhuis, D., Woudenberg, P. (2002): Growing up in the Family, U Gringhuis D., Moonen J., Woudenberg P. (ur.): Children with Partial Sight – Development, Parenting, Education, Support. Dorn: Barthimeus.

Gwizdon, K. (2005): Co-operation with Parents in the Process of Early Assistance in Child Development (Experience Derived from Early Revalidation Specialist Centre), ICEVI European Conference – Conference Report, Chemnitz: Sachsisches Forderzentrum Chemnitz, 480-486.

Hall, A., Rodabaugh, B. (1979): Development of a Pre-Reading Concept Program for Visually Handicapped Children. *Journal of Visual Impairment and Blindness*, Retrieved from EBSCO*host*.

Hatton, D. D., McWilliam, R. A., Winton, P. J., & ERIC Clearinghouse on Disabilities and Gifted Education, A. A. (2002). *Infants and Toddlers with Visual Impairments: Suggestions for Early Interventionists. ERIC Digest*. Retrieved from EBSCO*host*. **D. D., McWilliam, R. A., Winton, P. J., ERIC Clearinghouse on Disabilities and Gifted Education, A. A. (2002):** *Infants and Toddlers with Visual Impairments: Suggestions for Early Interventionists. ERIC Digest*. Retrieved from EBSCO*host*.

Justice, L., Sofka, A., McGinty, A. (2007): Targets, Techniques, and Treatment Contexts in Emergent Literacy Intervention. *Seminars In Speech And Language*, 28(1), 14-24. Retrieved from EBSCO*host*.

Klein, B. B., And, O. (1988): The Parent and Toddler Training Project for Visually Impaired and Blind Multihandicapped Children. *Journal of Visual Impairment and Blindness*, 82(2), 59-64. Retrieved from EBSCO*host*.

Koenig, A. J. (1992): A Framework for Understanding the Literacy of Individuals with Visual Impairments, Journal of Visual Impairment and Blindness, 86, 277-284. Retrieved from EBSCO*host*.

Koenig, A. J., Farrenkopf, C. (1997): Essential Experience to Undergird the Early Development of Literacy, Journal of Visual Impairment and Blindness, 90, 1. Retrieved from EBSCO*host*.

Koenig, A. J., Holbrook, M. C. (2000): Literacy Skills, U Holbrook M. C., Koenig A. J. (ur.): Foundations of education: Instructional Strategies for Teaching Children and Youths with Visual Impairment (str. 264-329). New York: AFB Press.

Koenig, A. J., Holbrook, M. C. (1991): Determining the Reading Medium for Visually Impaired Students via Diagnostic Teaching. *Journal of Visual Impairment and Blindness*, 85(2), 61-68. Retrieved from EBSCO*host*.

Krznarić, I. (ur.) (2001): Snaga u vršcima prstiju. Zagreb: Udruženje za unapređivanje obrazovanja slijepih i slabovidnih.

Losada, Martinez, Ma Jose, Gonzales-Benito, C. (2005): Early Attention and Family Adjustment with Blind and/or Visually Impaired Children, ICEVI European Conference – Conference Report (str. 507-513), Sachsisches Forderzentrum Chemnitz, Chemnitz.

Lukić, A. (2007): Brajica, In Nenadić K. (ed.): Učenik s oštećenjem vida u redovitoj školi. Zagreb: Hrvatski savez slijepih.

Lusk, K. E., Corn, A. L. (2006): Learning and Using Print and Braille: A Study of Dual-media Learners, Part 1., Journal of Visual Impairment and Blindness, 100, 10. Retrieved from EBSCO*host*.

Matok, D. (2002): Učenja brajice u integriranom obrazovanju. In Brajica za 21. Stoljeće. Zagreb: Hrvatski savez slijepih i Hrvatski odbor za brajicu.

Matok, D. (2007): Metodika rada s učenicima s oštećenjem vida. In Nenadić K. (ur.): Učenik s oštećenjem vida u redovitoj školi. Zagreb: Hrvatski savez slijepih.

McComiskey, A. V. (1996): The Braille Readiness Skills Grid: A Guide to Building a Foundation for Literacy, Journal of Visual Impairment and Blindness, 90, 3. Retrieved from EBSCO*host*.

Miller-Wood, D. J., And, O. (1990): Use of Closed-Circuit Television with a Severely Visually Impaired Young Child. *Journal of Visual Impairment and Blindness*, 84(10), 559-65. Retrieved from EBSCO*host*.

Murphy, J., Hatton, D., rickson, K. A. (2008): Exploring the Early Literacy Practices of Teachers of Infants, Toddlers, and Preschoolers with Visual Impairments. *Journal of Visual Impairment & Blindness*, 102(3), 133. Retrieved from EBSCO*host*.

Pester, E. J. (1985): Comprehensive Programs for the Visually Handicapped: Braille Readiness and Reading Materials from the American Printing House for the Blind. *DVH Quarterly*, 29(3), 26-31. Retrieved from EBSCO*host*.

Rex, E. J., Koenig, A. J., Wormsley, D. P., Baker, R. L. (1994): Foundations of braille ***literacy***. New York: AFB Press.

Reese, E., Cox, A. (1999): Quality of Adult Book Reading Affects Children's Emergent Literacy. *Developmental Psychology*, 35(1), 20-28. Retrieved from EBSCO*host*.

Reese, E., Sparks, A., Leyva, D. (2010): A Review of Parent Interventions for Preschool Children's Language and Emergent Literacy. *Journal of Early Childhood Literacy*, 10(1), 97-117. Retrieved from EBSCO*host*.

Salisbury, R. (ur.)(2008): Teaching Pupils with Visual impairment – a guide to making the school curriculum accessible. New York: Routledge.

Shankar, S., Evans, M., Bobier, W. (2007): Hyperopia and Emergent Literacy of Young Children: pilot study. *Optometry And Vision Science: Official Publication Of The American Academy Of Optometry*, 84(11), 1031-1038. Retrieved from EBSCO*host*.

Sköld, B. (2007): Picture Books Accessible to Blind and Visually Impaired Children. *IFLA Conference Proceedings*, 1-9. Retrieved from EBSCO*host*.

Simmons, J., Davidson, I. (1985): Perspectives on Intervention With Young Blind Children. *Child: Care, Health And Development*, 11(4), 183-193. Retrieved from EBSCO*host*.

Stanchfield, J. M. (1971): *The Development of Pre-Reading Skills in an Experimental Kindergarten Program*. Retrieved from EBSCO*host*.

Steinman, B. A., LeJeune, B. J., Kimbrough, B. T. (2006): Developmental Stages of Reading Processes in Children who are Blind and Sighed, Journal of Visual Impairment and Blindness, 100,1. Retrieved from EBSCO*host*.

Stratton, J. M. (1996): Emergent literacy: A New Perspective, Journal of Visual Impairment and Blindness, 90, 3. Retrieved from EBSCO*host*.

Stratton, J. M., Wright, S. (1991): On the way to literacy: Early Experiences for Young Visually Impaired Children. *Re:View*, 23(2), 55. Retrieved from EBSCO*host*.

Swenson, A. M. (1999). Beginning with Braille. New York: AFB Press.

Tadić, V., Pring, L., & Dale, N. (2010): Are Language and Social Communication Intact in Children with Congenital Visual Impairment at School Age?. *Journal Of Child Psychology And Psychiatry, And Allied Disciplines*, 51(6), 696-705. Retrieved from EBSCO*host*.

Walter-Klose, C (2005): Co-operation with Families, ICEVI European Conference – Conference Report (495-499), Chemnitz: Sachsisches Forderzentrum Chemnitz.

Walthes, R. (2005): Family, „Aiming for excellence"– Aiming for Excellence with families, for Families or Despite Families…?, ICEVI European Conference – Conference Report (400-409), Chemnitz: Sachsisches Forderzentrum Chemnitz.

Wormsley, D. P., D'Andrea, F. M. (1997): Instructional Strategies for Braille Literacy, New York: AFB Press.

Weigel, D. J., Martin, S. S., Bennett, K. K. (2010): Pathways to Literacy: Connections between Family Assets and Preschool Children's Emergent Literacy Skills. *Journal of Early Childhood Research*, 8(1), 5-22. Retrieved from EBSCO*host*.